

UNIVERSITY OF ARKANSAS BULLETIN

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# Annual Catalog

1921-1922

AND

ANNOUNCEMENT

1922-1923

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## UNIVERSITY CALENDAR

1922

Entrance examinations, etc. . . . . Monday-Tuesday, Sept. 18-19  
Registration for fall term . . . . Wednesday-Saturday, Sept. 20-23  
Fall term begins, 8:00 a. m. . . . . Monday, Sept. 25  
Thanksgiving holiday . . . . . Thursday, Nov. 30  
Registration for winter term . . Thursday-Wednesday, Dec. 14-20  
Fall term ends, 5:00 p. m. . . . . Wednesday, Dec. 20

1923

Winter term begins, 8:00 a. m. . . . . Wednesday, Jan. 3  
Registration for spring term . . . Monday-Thursday, March 19-22  
Winter term ends, 5:00 p. m. . . . . Thursday, March 22  
Spring term begins, 8:00 a. m. . . . . Tuesday, March 27  
Spring term ends, 5:00 p. m. . . . . Saturday, June 9  
Baccalaureate sermon . . . . . Sunday, June 10  
Commencement day . . . . . Tuesday, June 12  
Registration for summer term . . Wednesday-Saturday, June 13-16  
Summer term begins, 8:00 a. m. . . . . Monday, June 18  
Summer term ends, 5:00 p. m. . . . . Saturday, July 28

## BOARD OF TRUSTEES

*The Governor of Arkansas*.....*Ex-Officio*  
THOMAS C. McRAE, Little Rock.

*The State Superintendent of Public Instruction*..... *Ex-Officio*  
JOHN L. BOND, Little Rock.

### *Expiration of Term*

A. B. BANKS, Fordyce.....1923  
FRANK PACE, Little Rock.....1923  
JAMES D. HEAD, Texarkana.....1925  
JOE K. MAHONY, El Dorado.....1925  
HARRY L. PONDER, Walnut Ridge.....1925  
HUGH A. DINSMORE, Fayetteville.....1927  
JAMES K. BROWNING, Piggott.....1927

## OFFICERS

Chairman.....GOVERNOR THOMAS C. McRAE  
Secretary and Auditor.....WILLIAM H. CRAVENS, Fayetteville

## COMMITTEES

*Note.*—The name of the chairman stands first.

*Agricultural Extension*—Messrs. Browning, Pace, and Banks.

*Board of Control of the Agricultural Experiment Station*—

The Committee on the College of Agriculture, the President of the University, and the Director of the Experiment Station.

*Branch Normal School*—Messrs. Bond, Banks, and Mahony.

*Buildings and Grounds*—Messrs. Dinsmore, Ponder, and Browning.

*College of Agriculture*—Messrs. Browning, Ponder, and Pace.

*Executive*—Governor McRae, Messrs. Mahony, Head, and Dinsmore.

*Finance*—Messrs. Banks, Head, and Dinsmore.

*Medical College*—Messrs. Pace, Bond, and Head.

*Teachers*—Messrs. Bond, Mahony, and Head.



## OFFICERS OF ADMINISTRATION

Note.—The first date after a title indicates the year of appointment to present rank; the second, the year of first appointment to any position in the University. Where they coincide, only one date is given.

JOHN CLINTON FUTRALL, B. A., M. A. (University of Virginia), LL. D. (Tulane University). *President*, 1913, 1894.

WILLIAM NATHAN GLADSON, B. M. E., E. E. (Iowa State College), Ph. D. (McLemorsville College). *Vice-President and Dean of the College of Engineering*, 1914, 1894.

GEORGE WESLEY DROKE, B. A., M. A. (University of Arkansas), LL. D. (Hendrix College). *Dean of the College of Arts and Sciences*, 1915, 1880.

JAMES RALPH JEWELL, B. A., M. A. (Coe College), Ph. D. (Clark University). *Dean of the College of Education*, 1913.

BRADFORD KNAPP, B. S. (Vanderbilt University), LL. B. (University of Michigan), D. Agr. (Maryland Agricultural College). *Dean of the College of Agriculture and Director of the Agricultural Experiment Station*, 1920.

MARTIN NELSON, B. S. A., M. S. (University of Wisconsin). *Vice-Dean of the College of Agriculture and Vice-Director of the Agricultural Experiment Station*, 1920, 1908.

MARY ANN DAVIS, *Dean of Women*, 1911.

ARTHUR MCCracken HARDING, B. A. (University of Arkansas), M. A., Ph. D. (University of Chicago). *Director, General Extension Division*, 1919, 1905.

GEORGE WILLIAMS McLAREN, D. D. S. (University of Pittsburgh). *Director of Outdoor Athletics*, 1920.

MILTON T. PAYNE, *Director, Agricultural Extension Division*, 1920.

PEARL MARION FEARS, *Acting Registrar*, 1919, 1918.

JOHN CLARK JORDAN, B. A. (Knox College), M. A., Ph. D. (Columbia University). *Examiner*, 1919, 1918.

WILLIAM HAMPTON CRAVENS, *Auditor and Secretary of the Board of Trustees*, 1911.

THORGNY CEDRIC CARLSON, B. A. (University of Minnesota), *Executive Secretary to the President*, 1921, 1915.

JULIA RAMSEY VAULX, B. A. (University of Arkansas), M. A. (Cornell University). *Librarian*, 1914.

BOLLING JAMES DUNN, B. A., M. A. (Bethel College), LL. D. (Ouachita College). *Assistant Librarian*, 1917, 1894.

JIM P. MATHEWS, B. A. (University of Arkansas). *Reference Librarian*, 1917.

BEATRICE SIMS, B. A. (University of Missouri). *Catalog Librarian*, 1917.

MARGARET GALLOWAY, *Librarian of College of Agriculture and Experiment Station*, 1916.

DOROTHY NATION, R. N. *Superintendent of the Infirmary*, 1920.

CHARLOTTE B. JACKSON, B. A. (Agnes Scott College). *Y. W. C. A. Secretary*, 1920.

WILLIAM S. GREGSON, *Y. M. C. A. Secretary*, 1919.

MRS. CHARLES WINKELMAN, *Matron of the Men's Dormitories*, 1919.

MRS. FANNIE S. PARK, *Matron of Carnall Hall*, 1907.

MRS. J. E. CAMPBELL, *Assistant Matron of Carnall Hall*, 1907.

## FACULTY

Note.—The first date after a title indicates the year of appointment to present rank; the second, the year of first appointment to any position in the University. Where they coincide, only one date is given.

†Member of Experiment Station Staff.

\*Leave of absence.

### PROFESSORS, ASSOCIATE AND ASSISTANT PROFESSORS

FREDERICK GOTTLIEB BAENDER, B. M. E. (University of Iowa), M. E. (Cornell University). *Professor of Heat Power Engineering*, 1916.

\*†WILLIAM J. BAERG, B. A. (University of Kansas). *Professor of Entomology*, 1920, 1918.

†WILLIAM LESLIE BLEËCKER, D. V. M. (Ohio State University). *Professor of Bacteriology and Pathology*, 1919, 1918.

JOHN THEODORE BUCHHOLZ, B. S. (Iowa Wesleyan College), B. A. (University of Iowa), M. S., Ph. D. (University of Chicago). *Professor of Botany*, 1919.

GEORGE NEWTON CADE, B. S., M. A. (University of Chicago). *Professor of Educational Training*, 1921.

GILBERT HAVEN CADY, B. A., M. A. (Northwestern University), Ph. D. (University of Chicago). *Professor of Geology*, 1920.

†JOHN RALPH COOPER, B. S. (Kansas State Agricultural College), M. S. (University of Nebraska). *Professor of Horticulture*, 1918.

RAYMOND FRANK CRAWFORD, B. S., M. S. (Iowa State College). *Assistant Professor of Plant Pathology*, 1921.

SAMUEL CLAUDIUS DELLINGER, B. A. (Trinity College), M. A. (Columbia University). *Assistant Professor of Zoology and Botany*, 1921.

MACEY LILLARD DILL, Captain, U. S. Army. *Associate Professor of Military Art*, 1921.

GEORGE WESLEY DROKE, B. A., M. A. (University of Arkansas), LL. D. (Hendrix College). *Professor of Mathematics*, 1897, 1880.

- BOLLING JAMES DUNN, B. A., M. A. (Bethel College), LL. D. (Ouachita College). *Emeritus Associate Professor of Mathematics*, 1917, 1894.
- †HENRY EDMUND DVORACHEK, B. S. A. (University of Minnesota). *Professor of Animal Husbandry*, 1915.
- †JOHN ASBURY ELLIOTT, B. A. (Fairmount College), M. A. (University of Kansas), Ph. D. (University of Illinois). *Professor of Plant Pathology*, 1917.
- MARTIN RUSSELL ENSIGN, B. S. (Agricultural College of Utah), M. S. (Cornell University). *Associate Professor of Agricultural Education*, 1921, 1918.
- HARRISON CRANDALL GIVENS, B. M. E. (Cornell University), B. S. E. (University of Chicago). *Professor of Industrial Education*, 1918.
- WILLIAM NATHAN GLADSON, B. M. E., E. E. (Iowa State College), Ph. D. (McLemorsville College). *Professor of Electrical Engineering*, 1895, 1894.
- \*ROLAND M. GOW, D. V. M. (Ohio State University). *Professor of Veterinary Science*, 1914, 1909.
- BLANCHE GRAY, B. S. (Lewis Institute). *Assistant Professor of Home Economics Education*, 1920.
- HARRISON HALE, B. A. (Emory College), M. S. (University of Chicago), Ph. D. (University of Pennsylvania). *Professor of Chemistry*, 1918.
- KENNETH MALCOMB HALPINE, Major, U. S. Army. *Professor of Military Art*, 1919.
- LELAND STANFORD HAMILTON, B. A., M. A. (University of Indiana). *Assistant Professor of History and Political Science*, 1921.
- JOHN LEONARD HANCOCK, B. A. (University of Chicago), M. A. (Indiana University), Ph. D. (University of Chicago). *Associate Professor of Ancient Languages*, 1921, 1915.
- ARTHUR MCCrackEN HARDING, B. A. (University of Arkansas), M. A., Ph. D. (University of Chicago). *Professor of Mathematics and Astronomy*, 1916, 1905.
- GEORGE EVERETT HASTINGS, B. A. (Princeton University), M. A. (Princeton University and Harvard University), Ph. D. (Harvard University). *Associate Professor of English*, 1921, 1919.
- CHARLES FRANKLIN HILL, B. A., M. A., Ph. D. (University of Illinois). *Assistant Professor of Physics*, 1921.
- JOELLE HOLCOMBE, B. A. (University of Arkansas), M. A. (Cornell University). *Assistant Professor of English*, 1918, 1907.
- HENRY GUSTAVE HOTZ, Ph. B., M. A. (University of Wisconsin), Ph. D. (Columbia University). *Professor of Secondary Education*, 1919.
- ALLAN SPARROW HUMPHREYS, B. S. (Drury College), M. S. (University of Pennsylvania). *Assistant Professor of Chemistry*, 1921, 1918.



- DWIGHT ISLEY, B. A. (Fairmount College), M. A. (University of Kansas). *Associate Professor of Entomology*, 1921.
- JAMES RALPH JEWELL, B. A., M. A. (Coe College), Ph. D. (Clark University). *Professor of Education*, 1913.
- VIRGIL LAURENS JONES, B. A. (University of North Carolina), Ph. D. (Harvard University). *Professor of English*, 1915, 1911.
- ARTHUR MELLVILLE JORDAN, B. A. (Randolph-Macon College), M. A. (Trinity College, North Carolina), Ph. D. (Columbia University). *Professor of Psychology*, 1919, 1914.
- JOHN CLARK JORDAN, B. A. (Knox College), M. A., Ph. D. (Columbia University). *Professor of English and Public Speaking*, 1918.
- JAMES KESSLER, B. A. (Indiana University), M. A. (University of Illinois). *Associate Professor of Romance Languages*, 1921.
- BRADFORD KNAPP, B. S. (Vanderbilt University), LL. B. (University of Michigan), D. Agr. (Maryland Agricultural College). *Professor of Agricultural Economics*, 1920.
- ALFRED EDWIN LUSSKY, B. A. (Concordia College), B. D. (Concordia Theological Seminary), M. A. (University of Illinois), Ph. D. (University of Michigan). *Professor of German*, 1921, 1915.
- ANTONIO MARINONI, B. A. (Desenzano, Italy), M. A. (Yale University). *Professor of Romance Languages*, 1906, 1905.
- DAVID HOGAN MARKHAM, B. A. (Oklahoma University), M. A. (Dartmouth College). *Assistant Professor of Education*, 1921.
- †RALPH HEDGES MASON, B. S. A. (University of Missouri). *Assistant Professor of Animal Husbandry*, 1918.
- ERNEST BERTRAM MATTHEW, B. A. (Kansas State Normal School), M. S. (University of Wisconsin). *Professor of Agricultural Education*, 1919, 1918.
- CHALMER KIRK MCCLELLAND, B. S. A. (Ohio State University), M. S. A. (Cornell University). *Assistant Professor of Agronomy*, 1921.
- ALBERT DUEY MCNAIR. *Professor of Agricultural Economics*, 1920.
- †MARTIN NELSON, B. S. A., M. S. (University of Wisconsin). *Professor of Agronomy*, 1918, 1908.
- †LYNN WESLEY OSBORN, B. S. A. (Iowa State College). *Assistant Professor of Agronomy*, 1916, 1913.
- STELLA PALMER, B. S. (University of Alabama), M. A. (Columbia University). *Professor of Home Economics and of Home Economics Education*, 1918.
- LOUIS ALPHONSE PASSARELLI, B. A. (Columbia University), M. A. (University of Toronto). *Assistant Professor of Romance Languages*, 1921.



- FRANK WELBORN PICKEL, B. A. (Furman University), M. S. (University of South Carolina), M. S. (University of Chicago). *Professor of Zoology*, 1919, 1899.
- †CHARLES WORKMAN RAPP, B. S., M. S. (Oklahoma A. and M. College). *Assistant Professor of Horticulture*, 1920.
- †JOHN WILLIAM READ, B. S. A., M. S. (University of Missouri). *Professor of Agricultural Chemistry*, 1918.
- HARRY E. REED, B. S. A. (University of Missouri). *Assistant Professor of Animal Husbandry*, 1921.
- CHARLES MYRON REINOEHL, B. A., M. A. (University of Indiana), Ph. D. (University of Chicago). *Professor of School Administration*, 1921.
- GILES EMMETT RIPLEY, B. A., M. S. (Purdue University). *Professor of Physics*, 1908.
- \*†HARRY ROBERT ROSEN, B. S. (Pennsylvania State College), M. S. (University of Wisconsin). *Assistant Professor of Plant Pathology*, 1918.
- †WARD HARRISON SACHS, B. S. (Illinois Wesleyan College), M. S. (University of Missouri). *Associate Professor of Agronomy*, 1919.
- CLARA ROWENA SCHMIDT, B. S. E. (University of Missouri). *Assistant Professor of Home Economics*, 1921, 1920.
- JOHN W. SCOTT, B. A. (Fairmount College), M. A. (University of Texas). *Assistant Professor of Economics and Sociology*, 1921.
- JAMES MURRAY SHEEHAN, B. A. (Miami University), M. A. (Harvard University). *Associate Professor of Journalism*, 1920.
- WARREN RUSSELL SPENCER, B. A. (University of Indiana), B. S. C. E. (Rose Polytechnic Institute). *Associate Professor of Civil Engineering*, 1921, 1919.
- WILLIAM BOYD STELZNER, B. E. E., E. E. (University of Arkansas), M. S. (Ohio State University). *Professor of Electrical Engineering*, 1919, 1909.
- GEORGE PATRICK STOCKER, B. S. in C. E. (University of Wisconsin). *Professor of Civil Engineering*, 1919.
- †SAMUEL RODMAN STOUT, B. S. A. (University of Arkansas). *Assistant Professor of Animal Husbandry*, 1919, 1916.
- HENRY HARRISON STRAUSS, B. A. (Wooster College), M. A. (Tulane University). *Professor of Ancient Languages*, 1914, 1913.
- †BARNETT SURE, B. S., M. S., Ph. D. (University of Wisconsin). *Associate Professor of Agricultural Chemistry*, 1921, 1920.
- †JOSEPH EARLE SYFERD, D. V. M. (Ohio State University). *Assistant Professor of Veterinary Science*, 1919.
- DAVID YANCEY THOMAS, B. A. (Emory College), M. A. (Vanderbilt University), Ph. D. (Columbia University). *Professor of History and Political Science*, 1912, 1907.
- ELMSLIE TIMBS THOMAS, B. S. (Oberlin College), B. S. in Ed.

- (Kent State Normal College), M. A. (Oberlin College). *Assistant Professor of Geology*, 1921.
- HENRY DOUGHTY LOVEY, B. Mus., Mus. D. (Knox College). *Professor of Music*, 1908.
- †JACOB OSBORN WARE, B. S. A., M. S. (North Carolina State College). *Assistant Professor of Agronomy*, 1920.
- JULIAN SEESEL WATERMAN, B. A. (Tulane University), M. A. (University of Michigan). *Associate Professor of Economics and Sociology*, 1921, 1914.
- EDGAR WERTHEIM, B. S. (Northwestern University), B. P. E. (Y. M. C. A. College, Chicago), M. S. (University of Kansas), Ph. D. (University of Chicago). *Associate Professor of Chemistry*, 1921.
- BIRTON NEILL WILSON, B. S. M. E. (Georgia School of Technology), M. E. (University of Michigan), M. M. E. (Cornell University). *Professor of Experimental Engineering and Drawing*, 1917, 1896.
- FREDERICK ALFRED WIRT, B. S. in C. E. (University of Nebraska). *Professor of Agricultural Engineering*, 1921.

### INSTRUCTORS AND ASSISTANTS

- MARGARET ELLEN ASKEW. *Assistant in Physical Education*, 1921.
- †RUSSELL HAYDEN AUSTIN, B. S. A. (University of Arkansas). *Instructor in Agronomy*, 1918.
- LOY BARTON, B. E. E. (University of Arkansas). *Instructor in Electrical Engineering*, 1921.
- MARY CUMMINGS BATEMAN, B. A. (Millersburg College). *Instructor in Voice*, 1905.
- GERTRUDE BEDELL, Diploma (New York School of Fine and Applied Arts). *Instructor in Art*, 1921.
- LE ROY HENRY BERARD, Ph. B., M. A. (University of Chicago). *Instructor in English*, 1920.
- LEORA BLAIR, B. A. (University of Arkansas). *Instructor in Education*, 1920.
- MAUDE ETHEL BUNKER, Ph. B. (University of Wisconsin). *Instructor in Education*, 1920.
- \*WILLIE VANDEVENTER CROCKETT. *Instructor in Expression*, 1905.
- MERRILL DAKIN, Ph. B. (University of Chicago). *Instructor in English*, 1921.
- MARY ANN DAVIS. *Instructor in English*, 1915.
- JAMES DINWIDDIE. *Instructor in Mechanic Arts*, 1916.
- ELIZABETH JACKSON GALBRAITH, B. A. (West Tennessee Christian College). *Instructor in Art*, 1906.
- GLADYS GILL, B. S. (University of Wisconsin). *Instructor in Art*, 1921.
- JACK MURRAY GREATHOUSE, Sergeant, U. S. Army. *Assistant in Military Art*, 1919.
- EMELINE LOUISE GREEN, Diploma (Sargent School for Physical Education). *Instructor in Charge of Physical Education for Women*, 1921.

- DAVID CLINTON HANSARD. *Assistant in Violin*, 1916.
- EUGENE GUTHRIE HASSELL, B. A. (University of Arkansas).  
*Assistant in Piano*, 1920.
- JEAN HILL, B. A. (Tulane University). *Instructor in Home Economics*, 1919, 1918.
- JEWELL CONSTANCE HUGHES, B. A. (University of Arkansas),  
M. A. (University of Missouri). *Instructor in Mathematics*, 1918.
- †RUSSELL AUBREY HUNT, B. S. A. (University of Kentucky).  
*Instructor in Animal Husbandry*, 1919.
- GUY BRADIN IRBY, B. M. E. (University of Arkansas). *Instructor in Mechanical Engineering*, 1920.
- JAMES ARTHUR JONES. *Instructor in Mechanic Arts*, 1919.
- RUSSELL L. KIKER, Sergeant, U. S. Army. *Assistant in Military Art*, 1921.
- RALPH E. KING, B. E. E. (State University of Iowa). *Instructor in Electrical Engineering*, 1921.
- GEORGE BUCKER McCOWAN, B. S. in Business Administration (University of Missouri). *Instructor in Economics and Sociology*, 1921.
- HOWARD WALDO MCKINLEY, B. S. in E. E. (Colorado Agricultural College). *Instructor in Electrical Engineering*, 1921.
- OWEN MITCHELL. *Assistant in Music*, 1913.
- THOMAS BARILETT MULLIN, B. S. (Queens University, Ontario),  
M. S. (University of Wisconsin). *Instructor in Civil Engineering*, 1920.
- AGNES NELSON, Ph. B. (University of Chicago). *Instructor in Home Economics*, 1921.
- LYMAN EDWARDS PORTER, B. A., M. A., Ph. D. (Yale University).  
*Instructor in Chemistry*, 1921.
- ADELA RANKIN, B. A. (University of Wisconsin). *Instructor in Expression*, 1921.
- CELESTINE ELIZABETH ROACH, B. S. in Ed. (University of Missouri). *Instructor in Home Economics*, 1922.
- LEVI CLARK STARBIRD, B. E. E. (University of Arkansas). *Instructor in Electrical Engineering*, 1921.
- JERRY E. STILLWELL, B. S. in M. E., M. E. (University of Kansas). *Instructor in Heat Power Engineering*, 1921.
- WARD HASTINGS TAYLOR, B. A., M. A. (University of Illinois).  
*Instructor in Mathematics*, 1920.
- WILLIAM LEWDY TEAGUE, B. E. E. (University of Arkansas).  
*Instructor in Electrical Engineering*, 1919.
- ANDREW JACKSON THOMPSON. *Instructor in Mechanic Arts*, 1921.
- \*HARVEY MCCORMICK TRIMBLE, B. S. (University of Michigan).  
*Instructor in Chemistry*, 1918.
- WILLARD CORWIN WILBANKS, B. S. A. (Clemson Agricultural College). *Instructor in Dairying*, 1921.
- ELIZABETH PURNELL WILSON. *Instructor in Education*, 1919.

## STANDING COMMITTEES OF THE UNIVERSITY SENATE, 1921-22

*Note.*—The name of the chairman stands first.

*Accredited Schools*—Professors Hotz, Dvorachek, J. C. Jordan, Palmer, Spencer.

*Advisers*—Deans Knapp, Droke, Gladson, Jewell.

*Athletics*—Professors Wilson, Marinoni, Stout, President Futral, Director McLaren.

*Catalog*—Professors Sheehan, Hotz, Stocker, Wirt, the Registrar.

*Commencement*—Professors Ripley, Kessler, Holcombe, Tovey.

*Discipline and Attendance*—Professors Gladson, Dvorachek, A. M. Jordan, Stocker, Strauss, Miss Davis.

*Graduate Study*—Professors Jewell, Buchholz, Elliott, Hale, Hancock.

*Honorary and Higher Degrees*—Professors Droke, Nelson, Pickel, Read, Reinoehl.

*Intercollegiate Debating*—Professors J. C. Jordan, Jones, Scott, D. Y. Thomas, Waterman.

*Library*—Professors D. Y. Thomas, Elliott, Jewell, Stelzner, Miss Vaulx.

*Research*—Professors Hale, Elliott, Gladson, A. M. Jordan, Nelson, D. Y. Thomas.

*Schedule*—Professors Wilson, Cooper, Hancock, A. M. Jordan, the Registrar.

*Statistics*—Professors Baender, Bleecker, Dellinger, Palmer, Miss Galbraith.

*Student Affairs*—Professors Gladson, Hale, Holcombe, Jones, Miss Davis.

*Student Organizations*—Professors Stelzner, Cooper, Ensign, Hastings, Schmidt.

*Student Publications*—Professors Ripley, Halpine, Hastings, Sheehan, Stocker.

## GENERAL INFORMATION DIVISIONS

The University of Arkansas is composed of the following divisions: the College of Arts and Sciences, the College of Education, the College of Engineering, the College of Agriculture, the Agricultural Experiment Station, and the General Extension Division at Fayetteville; the School of Medicine and the Agricultural Extension division at Little Rock; and the Agricultural, Mechanical, and Normal School, at Pine Bluff. The three latter divisions are dealt with in other pages.



## LOCATION

Fayetteville is located in Washington County, in the north-western part of the state, in the heart of the Ozark Mountains. The elevation of the town is about 1,500 feet. The surroundings are of great natural beauty, and the excellent climate of the region in all seasons is known throughout the Southwest.

Fayetteville may be reached both from the north and from the south by the Texas branch of the St. Louis & San Francisco ("Frisco") Railroad. The Muskogee division communicates with the west.

The moral and religious conditions of the community are most favorable. There are twelve churches in the town, representing eleven denominations. The pastors of these churches actively interest themselves in the moral and spiritual welfare of the students.

## HISTORY

The University of Arkansas owes its origin to a public land grant Act of the Federal Congress, which was accepted by the General Assembly of the state March 27, 1871, in an Act which provided for the location, organization, and maintenance of the institution. Fayetteville was selected as the seat, and the University was opened January 22, 1872. It has been in continuous operation since that time.

The growth of the University has been steady from its beginning, and the institution is now developing rapidly in attendance, in standards of scholarship, and in breadth of influence. Every section of the state is now represented by students on the campus, and the University is also attracting a growing number of young people from other states. Young women have been admitted to its courses from the first day of its existence.

The institution, as originally organized, was not divided according to the present designations. Thus, although courses in engineering were offered almost from the opening of the University, and degrees were conferred, it was not until 1893 that the College of Engineering was organized as such. Similarly, the College of Agriculture was not established under its present name until 1905, nor the College of Education until 1916, despite the fact that instruction in these fields had been given from the very first years of the institution. The Experiment Station was established in 1887, under an Act of Congress known as the Hatch Act. The present General Extension division and Agricultural Extension division were announced in the 1918 catalog of the University for the first time, but extension work has been offered since 1910.

## INCOME AND RESOURCES

The support of the University for 1920-21 came from the following sources:

From the Federal Government:

For Agricultural and Home Ec. Extension.....	\$137,867.77
For the A. and M. College.....	36,363.00

For the Agricultural Experiment Station.....	30,000.00
For Vocational Training .....	9,670.00
For Smith-Hughes work .....	3,364.00
From the State:	
For the University .....	279,869.00
For Agricultural and Home Ec. Extension.....	79,222.72
Student fees .....	31,436.00
Sales, Horticultural department .....	7,780.00
Sales, Animal Husbandry department.....	7,351.00
Endowment .....	6,903.34
General Education board.....	3,500.00
Miscellaneous .....	39,711.82
Total operating funds available.....	\$673,038.65
The equipment, buildings, and grounds at Fayetteville are estimated to be worth about \$950,000.00.	

### BUILDINGS AND EQUIPMENT

The campus at Fayetteville comprises a tract of wooded land of about one hundred twenty acres on a hill overlooking the town, and includes some twenty buildings. The University has its own heating plant and is supplied with electric light and water from the city plants.

#### DORMITORIES

Three dormitories are provided for the housing of men students. *Buchanan Hall*, a three-story brick structure, contains about forty student rooms. *Hill Hall*, likewise a three-story brick building, contains about twenty rooms for students, besides a recreation hall and a dining-hall. *Gray Hall*, two stories in height and built of brick, accommodates about one hundred students. All rooms are provided with beds, mattresses, a table, and two chairs; all other furnishings are supplied by the occupant.

*Carnall Hall*, the dormitory for young women, is an attractive three-story brick structure and contains rooms sufficient for about one hundred students, with parlors, a dining-hall, and a recreation room. The kitchens and dining-hall are under the expert supervision of a college trained dietitian. Furnishings are similar to those in the men's dormitories.

#### UNIVERSITY HALL

This structure, erected in 1872, is the old "main building." It is five stories in height and forms three sides of a quadrangle. Its seventy rooms serve as the offices of administration, and the class-rooms, besides some laboratories, of the College of Arts and Sciences.

*Library.* The main library of the University is found in this building, as are also the libraries of the College of Agriculture, and of the departments of Geology, Botany, Zoology, and Mathematics. Other departmental libraries are housed in the Chemistry, Engineering, and Physics buildings.

The University libraries altogether contain about 42,500 books, as follows:

General Works .....	225
Philosophy .....	519
Religion .....	507
Social Sciences .....	2,828
Education .....	808
Philology .....	393
Science .....	3,023
Useful Arts .....	536
Engineering .....	891
Agriculture .....	1,944
Home Economics .....	294
Fine Arts .....	205

**Literature:**

American .....	779
English .....	2,079
German .....	1,116
French .....	336
Spanish and Italian.....	239
Latin and Greek.....	587
General and Miscellaneous.....	596
Geography and Travel.....	348
Biography.....	643
History:	
European .....	901
American .....	597
General and Miscellaneous.....	596
Bound Periodicals .....	2,983
Government and State documents.....	18,411

*The Biological and Geological Laboratories.* The laboratories for Botany, Zoology, and Geology are supplied with equipment fully adequate for the courses offered.

*The Museum* contains various collections (mineral, petrographic, paleontological, botanical, zoological, relief maps) made with the view of facilitating instruction in biology and geology.

*Art Studio.* The studio is equipped for work in design, drawing, and painting.

*The practice rooms* of the Department of Music are located in University Hall.

*Women's Gymnasium.* The gymnasium for the women students is equipped with modern apparatus, and provided with lockers, dressing-rooms, and shower-baths.

*Armory.* The armory, with the usual military equipment, including band instruments, occupies a large room in the basement.

*Book Store.* The book-store contains a complete line of textbooks and supplies.

### *CHEMISTRY BUILDING*

This building contains laboratories for quantitative and qualitative analysis, for organic and physical chemistry, for assaying, besides balance-room, a library, a large lecture-room, and a general laboratory for beginning students.

### *AGRICULTURE BUILDING*

This building contains the main administration offices of the College of Agriculture, the offices of the Dean and Director and of the Departments of Agronomy and Soils and Agricultural Engineering. Here are located the Cotton laboratory, where instruction in Cotton Grading is given and where the laboratory work in cotton is conducted, class rooms and the laboratories for Field Crops and for Soils, and the laboratory of biochemical study of nutrition conducted by the Department of Agricultural Chemistry.

### *EXPERIMENT STATION BUILDING*

This building contains the laboratories and the offices of the Departments of Horticulture, Plant Pathology, Bacteriology, Agricultural Chemistry, and Veterinary Science. These are equipped for the study of the problems along these several lines in the work of the State Experiment Station and for the instruction of students.

### *ENTOMOLOGY BUILDING*

This is a small brick building originally intended as a residence, but now equipped with the collection of insects, laboratory, microscopes and other necessary material for the study of insect pests affecting crops and live stock in Arkansas and for the instruction of the students in Economic Entomology and other subjects concerned with the insect enemies of the farmer. In connection with the same department there is an insectary for the hatching and rearing of insects in screened cages for study and experimentation.

### *DAIRY BUILDING*

The Dairy Building is a stone building containing the offices of the Department of Animal Husbandry and Dairying, the class rooms of that department, a dairy laboratory, and the college creamery which manufactures about 5,000 pounds of butter each week and serves as a means of instruction in creamery work.

### *LIVE STOCK*

At the barns west of the campus and at the Experiment Station Farm the College of Agriculture and Experiment Station has a large amount of live stock for instructional and experimental purposes. This consists of about one hundred head of cattle, including Jerseys, Holsteins, Ayrshires of the dairy breeds; Shorthorns, Herefords, and Angus of the beef breeds. Many of these are prize winners and among them are some of



the best cattle in the State of Arkansas. Three breeds of hogs are also kept for the work of the institution, consisting of Poland Chinas, Durocs, and Hampshires and numbering from seventy-five to one hundred fifty head according to the season. Poultry to the number of six hundred to one thousand head are carried in the breeding and other experimental work of the College.

### FARM LANDS AND ORCHARDS

The College of Agriculture and Experiment Station has approximately five hundred twenty-five acres of land in the new Experimental Farm and the lands adjacent to the University Campus. These are used in general farming and in the active work of the State Experiment Station. Agronomy has about one hundred twenty acres in experimental work in soils and crops. The Department of Horticulture farms about sixty-five acres, consisting of a fine new apple orchard, a mature apple orchard covering forty acres in all, also a vineyard, and room for vegetable work. The Department of Animal Husbandry has the barns, pastures, and crops for the live stock. These facilities are used in work of instruction as well as experimentation. In addition to these the students are often taken to nearby farms, orchards, and centers of production. Branch experiments are conducted at various places in the state. During the past year a Branch Station was maintained at Scott, Arkansas, for the study of cotton and related crops of the cotton section of the state.

### PEABODY HALL

Peabody Hall is used by the College of Education. It is a modern, fireproof building, containing about thirty rooms for class work, various offices, a large assembly room, a manual training shop, home economics laboratories, and rooms in which the college classes in Education and Psychology meet.

*University High School.* The University High School and the primary grades for practice teaching are also conducted in this building.

*Home Economics Laboratories*—Practically all of one floor is occupied by the laboratories for cookery, sewing, millinery, and table service, and the reception room. The equipment in each laboratory is new and modern.

### ENGINEERING HALL

Erected in 1904, this building contains the offices, recitation rooms, drawing rooms, and testing laboratories of the civil, electrical, and mechanical engineering departments.

*The Civil Engineering Testing Laboratory.* The road materials testing equipment is complete for making all the standard tests as recommended by the U. S. Office of Public Roads. The cement and concrete testing equipment is sufficient for making all the standard tests in cement and on small specimens of concrete. The structural materials testing department is equipped for making tension, compression, and impact tests on small spec-

imens of practically all structural materials. The hydraulic laboratory equipment, although rather limited, is sufficient to give practical demonstrations in connection with elementary hydraulics.

The *Civil Engineering Instrumental Laboratory* is provided with all the necessary instruments for work in land, railroad, and city surveying, practical astronomy, and office work. The equipment of field instruments has been so selected as to afford students the opportunity of becoming familiar with the instruments of the different manufacturers.

The *Electrical Engineering Laboratories* offer excellent facilities for experimental work. The main laboratory is supplied with a variety of types and sizes of direct current and alternating current generators, motors, control equipment and instruments; storage batteries, converters and rectifiers, synchronous converters, transformers, condensers, inductances, etc. Adequate switchboards and wiring are provided for convenience in testing. A well equipped instrument and repair shop is maintained in connection with the laboratory.

The *Standardizing Laboratory* is equipped with standards and precision instruments and is wired and arranged for facility in standardizing work.

The *Photometric Laboratory* has a standard photometer bar and accessories, several types of portable photometers, and lighting units and equipment.

The *Telephone Laboratory* has magneto and central energy switchboards complete, test lines, and numerous telephone and wireless instruments.

The *Experimental Engineering Laboratory* is equipped with steam and gasoline engines, condenser, boiler feed pumps, and other power plant equipment for conducting standard tests. In addition to the power plant equipment, the laboratory is provided with apparatus for fuel testing, oil testing, flue gas analysis, and for testing materials of construction.

### MECHANICAL HALL

*Mechanical Hall* contains the machine shop, wood shop, and forge shop. The shops will accommodate about seventy-five students at one time. Adjoining on the east is a boiler room.

### PHYSICS BUILDING

The *Physics Building*, built in 1917, is a two-story frame building containing ten rooms well arranged for lecture and laboratory work in physics. On the first floor are two laboratory rooms, a large lecture room, a store-room, and an office room. The second floor includes a large lecture room, a laboratory room, a photometric room, a work-shop room, and a library. Concrete piers are provided for all delicate work in the laboratories and for the delicate balances. The equipment of apparatus is fairly complete and of sufficient variety and duplication to permit the instruction of large sections in the laboratories.

### UNIVERSITY CLUB

This new building, completed this year, stands between the Agricultural Building and the Chemistry Building. It contains, besides the assembly rooms of the faculty organization, a modern cafeteria restaurant for faculty, students, and others, located on the ground floor.

### Y. M. C. A. HUT

A hut of the standard "D" type contains the office of the Y. M. C. A. secretary, and also an auditorium which is used for religious meetings on Thursday evenings, for motion picture entertainments, and for various social affairs.

### INFIRMARY

The infirmary is in charge of a trained nurse. The building is furnished with open and private wards for men and women, and a well isolated ward for contagious cases.

### ATHLETIC FIELD

Grounds for athletic sports contain the football gridiron, the baseball diamond, the quarter mile track, and facilities for basketball, volley ball, and other games. Tennis courts are located in various places on the campus.

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## ADMISSION

Admission to any college of the University of Arkansas may be obtained either by a certificate from an accredited high school or preparatory school, or by examination. For unconditional entrance, the candidate must be a graduate of an accredited four-year high school or preparatory school, and must have completed satisfactorily at least fifteen entrance units.

### ADMISSION BY EXAMINATION

*General Examinations.* Entrance examinations are offered at the University during the opening week of school. Students living at a distance from the University may secure special examinations to be conducted by the school principal or the county superintendent under conditions that will be indicated when the application is made. Requests for examinations must be mailed so as to reach the University Examiner not later than September 1.

*Intelligence Test.* Persons twenty-three years of age, or over, who do not possess a satisfactory secondary school record may secure admission to the University and pursue courses leading to a degree by passing a general intelligence test designed to determine the applicant's mental power and alertness. Students admitted to the University by an intelligence test may be granted a degree from this University provided that each year they maintain an average scholastic record of at least two and a half grade points.

## ADMISSION BY CERTIFICATE

**Class "A" Schools**—All graduates of class A high schools and preparatory schools of this state are admitted unconditionally to the freshman class of the University. This privilege will also be granted to all graduates of schools accredited by the Association of Colleges and Secondary Schools of the Southern States, or by the North Central Association of Colleges and Secondary Schools.

**Class "B" Schools**—Graduates of these schools who present fifteen units of work approved by the University are admitted to the freshman class. Students coming from high schools or preparatory schools located in another state not accredited by the Association of Colleges and Secondary Schools of the Southern States, nor by the North Central Association of Colleges and Secondary Schools, but accredited by the state University of that state, may enter the University upon the same terms. For subjects accepted for admission see later pages.

When a candidate is deficient in not more than one unit, he may be allowed conditional entrance, with the provision that all such deficiencies must be removed during the first year of his attendance at the University by examination, or by courses pursued in summer school, or by courses pursued in the regular session, intended primarily for freshmen, in satisfaction of the deficiencies. If University courses are offered to remove entrance deficiencies, nine term hours of college work will be equivalent to one entrance unit.

Any student who has completed fifteen or more units in acceptable courses in the high school, but who has attended high school less than four full years, shall be conditioned in one entrance unit. This condition may be removed by making a passing grade in twelve hours of work during the first term of the freshman year; otherwise the student must make up this condition in the manner described above.

A student who is deficient in more than one unit and who has exhausted the school privileges of his home community may enter the University High School, provided he resides in the state of Arkansas. Such students must be at least fifteen years of age and of good moral character.

Students who have been previously admitted to another college or university of equal standing will be allowed to enter without conditions upon presenting a certificate of honorable discharge, and an official statement of the work accepted for entrance by the institution last attended, provided it appears that such work is substantially equivalent to the work required for entrance to the University of Arkansas.

An official statement of the student's record, containing specific information as to the kind and extent of work done, should be mailed to the Registrar of the University as early in the summer as possible and in no case later than September 1.



Blank forms for this purpose will be furnished upon request. Diplomas of graduation will not be accepted in lieu of certificates.

## OUTLINE OF ENTRANCE REQUIREMENTS

### COLLEGE OF ARTS AND SCIENCES

The following units are prescribed for the course leading to the degree of *Bachelor of Arts*:

English, three units.

Algebra, one unit.

Geometry, one unit.

History, one unit.

French, German, Greek, Latin, or Spanish, three units, at least two of which must be in the same language. When a student is not able to meet this requirement at entrance, he may be allowed to take as a part of his college course, in addition to the language requirement for a degree, a one-year course in foreign language of not less than three hours a week for each entrance unit in which he is deficient.

Enough additional units to bring the total to fifteen, including not more than four units in vocational and business subjects.

The following units are prescribed for the course leading to the degree of *Bachelor of Science*:

English, three units.

Algebra, one unit.

Geometry, one unit.

History, one unit.

Natural Science, one unit.

Enough additional units to bring the total to fifteen, including not more than four units in vocational and business subjects.

The following units are prescribed for the course leading to the degree of *Bachelor of Music*, and for the special courses in music:

English, three units.

History, one unit.

French, German, Greek, Latin, or Spanish, three units, at least two of which must be in the same language. When a student is not able to meet this requirement at entrance, he may be allowed to take as a part of his college course in addition to the language requirement for a degree, a one-year course in foreign language of not less than three hours a week for each entrance unit in which he is deficient.

Enough additional units to bring the total to fifteen, including not more than four units in vocational and business subjects. A maximum of three units in music may be used as part of the elective work.

### COLLEGE OF EDUCATION

The following units are prescribed for all courses leading to the degree of *Bachelor of Science in Education*:

English, three units.

Social Science, one unit.

Science and Mathematics group, two units.

Enough additional units to bring the total to fifteen.

Graduates of Class "A" high schools and preparatory schools of the State of Arkansas are admitted without reference to fixed conditions.

A maximum of four units towards entrance will be allowed in vocational subjects. Students preparing to teach agriculture, home economics, and commercial subjects may, however, be permitted to offer seven and one-half units in vocational subjects.

### PROVISIONS AFFECTING ADVANCED STANDING

Graduates of the Arkansas State Normal School, and of institutions of equal standing elsewhere, who have completed at least two full years of normal school work after graduating from a fully approved four-year high school, will be admitted to junior standing.

### COLLEGE OF ENGINEERING

The following units are prescribed for all four-year courses\*:

English, three units.

Algebra, one and one-half units.

Geometry, one unit.

History, one unit.

Enough additional units to bring the total to fifteen, including not more than four units in vocational and business subjects.

### COLLEGE OF AGRICULTURE

The following units are prescribed for entrance to the four-year courses in agriculture:

English, three units.

Algebra and Geometry, two units (at least  $\frac{1}{2}$  unit in Geometry).

Enough additional units to bring the total to fifteen.

A maximum of  $7\frac{1}{2}$  units toward entrance will be allowed for vocational and business subjects to students from the district agricultural schools and accredited Smith-Hughes high schools.

A maximum of 4 units towards entrance will be allowed for vocational and business subjects to students from other accredited high schools.

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\*For a statement of the entrance requirements to the engineering trade courses, see later page.

### HOME ECONOMICS

The following units are prescribed for the four-year course in home economics:

English, three units.

Algebra, one unit.

History, one unit.

Enough additional units to bring the total to fifteen.

Students from district agricultural schools, from accredited Smith-Hughes high schools, and other high schools offering courses in home economics approved by the State Supervisor, may offer  $7\frac{1}{2}$  units in vocational and business subjects,  $3\frac{1}{2}$  of which may be in business or vocational subjects other than home economics.

In accredited schools other than those mentioned above, four units may be offered in vocational (including home economics) and business subjects.

#### ADVANCED STANDING ALLOWED STUDENTS FROM DISTRICT AGRICULTURAL SCHOOLS

Students entering from the District Agricultural Schools may obtain advanced standing by taking examinations in courses in agriculture or home economics offered in the freshman and sophomore years in the College of Agriculture, in so far as the student's work in the District Agricultural School has not already been applied as entrance credits.

#### ACCREDITED SMITH-HUGHES HIGH SCHOOLS

To be eligible for classification as an accredited Smith-Hughes High School, such school must be approved by the State Supervisor, and the agriculture or home economics taught must be approved by the faculty of the College of Agriculture of the University of Arkansas.

### SUBJECTS ACCEPTED FOR ADMISSION

The following statements indicate in a general way the preparation which is expected in the various subjects accepted for admission. The numbers in parentheses following each subject indicate the minimum and maximum number of units which may be offered in that subject. The term unit is understood to represent a high school or preparatory course continued through a school year of thirty-six weeks with five recitations of forty-five minutes each a week. In all laboratory work a double period of ninety minutes will be equivalent to a single recitation period of forty-five minutes.

#### ENGLISH (3-4)

In order to secure a definite plan of study and unity of method on the part of the preparatory schools, the entrance requirement in English is outlined below somewhat in detail, following the recommendations of the National Conference on Uniform Entrance Requirements in English.

The study of English in school has two main objects: (1) command of correct and clear English, written and spoken; (2) ability to read with accuracy, intelligence, and appreciation.

*Grammar and Composition.*—The first object requires instruction in

grammar and composition. English grammar should ordinarily be reviewed in the secondary school; and correct spelling and grammatical accuracy should be rigorously exacted in connection with all written work during the four years. The principles of English composition governing punctuation, the use of words, sentences, and paragraphs should be thoroughly mastered, and practice in composition, oral as well as written, should extend throughout the secondary school period. Written exercises may well comprise letter-writing, narration, description, and easy exposition and argument. It is advisable that subjects for this work be taken from the student's personal experience, general knowledge, and studies other than English, as well as from his reading in literature. Finally, special instruction in language and composition should be accompanied by concerted effort of teachers in all branches to cultivate in the student the habit of using good English in his recitations and various exercises, whether oral or written.

*Literature*—The second object is sought by means of two lists of books, headed respectively, *Reading and Study*, from which may be framed a progressive course in literature covering four years. In connection with both lists, the student should be trained in reading aloud, and be encouraged to commit to memory some of the more notable passages in both verse and prose. As an aid to literary appreciation, he is further advised to acquaint himself with the most important facts in the lives of the authors whose works he reads and with their place in literary history.

The College Entrance Examination Board has prepared two lists of books, a "Restricted" list and a "Comprehensive" list. The choice of books for reading and study in the Comprehensive list is rather wide. Copies of this list may be secured from the publishing houses, or from the College Entrance Examination Board, 431 West 117th Street, New York City. It should be noted that, though the "Comprehensive" list contains a number of books by living writers, it does not include contemporary novels of no permanent value. Such novels will not be accepted as part of the entrance requirement. The "Restricted" list is printed below, with semicolons used to set off the units. With a view to a large freedom of choice, the books provided for reading are arranged in the following groups, from each of which at least two selections are to be made, except as otherwise provided under Group I.

## LIST OF BOOKS, 1920-1922

### A. READING

Group I. *Classics in Translation*.—*The Old Testament*, at least the chief narrative episodes in *Genesis*, *Exodus*, *Isaiah*, *Isaiah Kings* and *Daniel*, together with the books of *Ruth* and *1 Peter*; the *Odyssey*, with the omission, if desired, of books I-V, XV, and XVI; the *Aeneid*. The *Odyssey* and the *Aeneid* should be read in English translations of recognized literary excellence.

For any selection from this group a selection from any other group may be substituted.

Group II. *Drama*.—Shakespeare, *Merchant of Venice*, *As You Like It*; Julius Caesar.

Group III. *Prose Fiction*.—Dickens, *A Tale of Two Cities*; George Eliot, *Silas Marner*; Scott, *Quentin Durward*; Hawthorne, *The House of Seven Gables*.

Group IV. *Essays, Biographies, etc.*—Addison and Steele, *The Sir Roger de Coverley Papers*; Irving, *The Sketch Book* (selections covering about 175 pages); Macaulay, *Lord Clive*; Parkman, *The Oregon Trail*.

Group V. *Poetry*.—Tennyson, *The Coming of Arthur*, *Garth and Lynette*, *Lancelot and Elaine*, *The Passing of Arthur*; Browning, *Carabos Tunes*, *The Lost Leader*, *How They Brought the Good News from Ghent to Aix*, *Home Thoughts from Abroad*, *Home Thoughts from the Sea*, *Incident of the French Camp*, *Herz Riel*, *Phaedriopides*, *My Last Duchess*, *Up at a Villa*;—Down in the City, *The Italian in England*, *The Patriot*, *The Pied Piper*, "De Gustibus," *Instans Tyrannus*; Scott, *The Lady of the Lake*; Coleridge, *The Ancient Mariner*; and Arnold, *Sohrab and Rustum*.



## B. STUDY

Group I. *Drama*.—Shakespeare, *Macbeth* or *Hamlet*.

Group II. *Poetry*.—Milton, *L'Allegro*, *Il Penseroso*, *Comus*; Book IV of Palgrave's *Golden Treasury* (First Series) with special attention to Wordsworth, Keats, and Shelley.

Group III. *Oratory*.—Burke, *Speech on Conciliation with America*; Washington, *Farewell Address*; Webster, *First Bunker Hill Oration*; and Lincoln, *Gettysburg Address*.

Group IV. *Essays*.—Macaulay, *Life of Johnson*; Carlyle, *Essay on Burns*, with a brief selection from *Burns's Poems*.

Note. The reading list adopted by the Arkansas State Board of Education may be substituted for the above list, subject to the approval of the University in each case.

## LIST OF BOOKS, 1923-1925

## A. READING

From each group two selections are to be made, except that for any book in Group V a book from any other group may be substituted.

Group I. *Prose Fiction*.—Dickens, *A Tale of Two Cities*; George Eliot, *Silas Marner*; Scott, *Quentin Durward*; Stevenson, *Treasure Island* or *Kidnapped*; Hawthorne, *The House of Seven Gables*.

Group II. *Prose*.—Shakespeare, *Merchant of Venice*; *Julius Caesar*; *King Henry V*; *As You Like It*.

Group III. *Poetry*.—Scott, *The Lady of the Lake*; Coleridge, *The Ancient Mariner*; Arnold, *Schubert and Ruston*, a collection of representative verse, narrative and lyric; Tennyson, *Idylls of the King* (any four); the *Antar* or the *Odyssey* in a translation of recognized excellence, with the omission, if desired, of Books I-V, XV, and XVI of the *Odyssey*.

Group IV. *Poetry Biography, etc.*—The Old Testament (the chief narrative episodes); Genesis, *Isaiah*; Joshua, Judges, Samuel, Kings, and Daniel, together with the books of Ruth and Esther; Irving, *The Sketch Book* (about 175 pages); Addison and Steele, *The Sir Roger de Coverley Papers*; Macaulay, *Lord Chancery*; Parkman, *The Oregon Trail*; Franklin, *Autobiography*.

Group V. *Contemporary Literature*.—A modern novel; a collection of short stories (about 150 pages); a collection of contemporary verse (about 150 pages); a collection of prose writings on matters of current interest (about 150 pages); two modern plays.

All selections from this group should be works of recognized excellence.

## B. STUDY

One selection is to be made from each group.

Group I. *Drama*.—Shakespeare, *Macbeth*; *Hamlet*.

Group II. *Poetry*.—Milton, *L'Allegro*, *Il Penseroso*, and either *Comus* or *Lycidas*; Browning, *Camber Tunes*, *The Last Leader*, *How They Brought the Good News from Ghent to Aix*; *Home Thoughts from Abroad*; *Home Thoughts from the Sea*; *Trident of the French Camp*; Herod Riel, *Phœdipylus*; *My Last Duchess*; *Up at a Villa—Down in the City*; *The Italian in England*; *The Patriot*; *The Pied Piper*; "De Gustibus," *Instans Tyrannus*, *One Word More*.

Group III. *Essays*.—Macaulay, *Life of Johnson*; Carlyle, *Essay on Burns* with a brief selection from *Burns's Poems*; Arnold, *Wordsworth*, with a brief selection from *Wordsworth's Poems*.

Group IV. *Oratory*.—Burke, *Speech on Conciliation with America*; a collection of orations, to include at least Washington's *Farewell Address*, Webster's *First Bunker Hill Oration*, and Lincoln's *Gettysburg Address*.

Note. The reading list adopted by the Arkansas State Board of Education may be substituted for either of the preceding lists, subject to the approval of the University in each case.

## MATHEMATICS

*Elementary Algebra*. (1).—Positive and negative numbers; addition, subtraction, multiplication, division; factoring, highest common divisor and

lowest common multiple by factoring; fractions; equations of the first degree, in one, two or three unknowns, with numerous problems involving such equations; evolution (omitting the binomial theorem); evolution (omitting cube root); graphical representations and graphical methods in the solution of equations of all types; pure quadratic equations; affected quadratic equations by the method of completing the square and by factoring, with problems involving such equations. Hawkes-Luby-Touton, *First Course in Algebra*, or its equivalent, will be accepted as a satisfactory text.

*Higher Algebra.* ( $\frac{1}{2}$ -1).—A review of elementary algebra with more difficult problems and with some demonstrational work; theory of quadratics, simultaneous quadratics, ratio and proportion, variation, progressions arithmetical, geometrical, and harmonical, binomial theorems, and logarithms. Hawkes-Luby-Touton, *Second Course in Algebra*, or its equivalent will be accepted as a satisfactory text. One unit will be allowed for this course provided that the course is pursued during the fourth year, otherwise, only one-half unit will be allowed.

*Plane Geometry.* (1).—Any of the standard texts on this subject will furnish the necessary preparation. The exercises requiring solutions and demonstrations should be emphasized.

*Solid Geometry.* ( $\frac{1}{2}$ ).—Any of the standard texts on this subject will furnish the necessary preparation. The exercises requiring solutions and demonstrations should be emphasized.

*Plane Trigonometry.* ( $\frac{1}{2}$ ).—This should include a thorough study of some standard high school text, such as Harding and Turner's *Plane Trigonometry*. The exercises requiring solutions and demonstrations should be emphasized.

## HISTORY AND SOCIAL SCIENCES

### HISTORY

*Ancient History.* ( $\frac{1}{2}$ -1).—The completion of a standard text-book, with emphasis on the history of Greece and Rome and some attention to geography, will satisfy the requirements for one unit.

*Medieval and Modern History.* ( $\frac{1}{2}$ -1).—The completion of a standard text covering the history of Europe in medieval and modern times, some parallel reading, and a knowledge of the geography involved, will satisfy the requirements for one unit.

*European History.* ( $\frac{1}{2}$ -1).—In place of the one unit courses in ancient history and medieval and modern history outlined above, two units of credit will be given for courses in European development based on texts like Robinson and Breasted, and Robinson and Beard.

*English History.* ( $\frac{1}{2}$ -1).—An advanced high school text should be used. Constitutional points should receive attention, and easily accessible documents should receive careful study.

*American History.* ( $\frac{1}{2}$ -1).—An advanced high school text should be used and the subject should be taken preferably in the senior year. Current newspapers and magazines should be assigned as collateral reading.

### SOCIAL SCIENCES

*Community Civics and Occupations.* ( $\frac{1}{2}$ -1).—The aim of the course should be to help the child to know his community, not merely a group of facts about it, but the meaning of his community life, what it does for him, and how he does it, what the community has a right to expect from him, and how he may fulfill his obligations. This course should include a thorough study of some standard text, such as Hughes' *Community Civics*. If it is desired, a part of the time may be spent studying such a text as Gowin and Wheatley's *Occupations*.

*Elementary Economics.* ( $\frac{1}{2}$ ).—In the study of economics it is desirable to avoid two extremes, abstract theory on one hand, and controversial questions, such as the tariff, trusts, and trade unions, on the other hand. Emphasis should be placed on the historical and descriptive matter, especially relating to the economic development of England and the United States. Some good elementary text-book should be mastered and a reasonable amount of collateral reading required.

*Elementary Sociology.* ( $\frac{1}{2}$ ).—Concrete facts and problems, particularly of the social groups with which pupils are most familiar, such as the neighborhood, the local community, the play gang of adolescents, and the family, should be stressed.

*Civil Government.* ( $\frac{1}{2}$ ).—This should be a study of our government, national, state, and local, as it is organized and actually operated today. The instruction should aim to impart information essential to intelligent active citizenship, such as the division of the government into departments, their organization and functions; the methods of nominating, electing, and appointing men to office; of framing and amending constitutions, city charters, and statutes; of drawing grand and petit juries and the duty of the citizen to serve on them; the distinction between common law, state law, and constitutional law, between equity, civil, and criminal cases.

*Commercial Geography.* ( $\frac{1}{2}$ ).—This describes and seeks to explain the commerce of today. The work should cover the ways in which commerce depends on nature and on man, the development of means of transportation and communication, and a detailed study of the several commercial regions of the world, with reference to resources, industries, transportation facilities, and commerce. It should be based on the text-book, supplemented by map work and assigned readings.

## LANGUAGES

### LATIN

*Latin Grammar.* (1).—This should include a thorough grounding in some standard elementary Latin Grammar, such as Bennett, Hale Buck, or Allen and Greenough, revised edition. Proficiency is particularly desired in the following subjects: the analysis of the verb forms, the rules of syntax, and the principal parts of the irregular verbs.

*Caesar.* ( $\frac{1}{2}$ -1).—First four books or selections from the seven books equivalent to four. The student is expected to be familiar with the life of Caesar and an account of his wars.

*Cicero.* ( $\frac{1}{2}$ -1).—Any four orations from the following list: *Against Cataline*, *Poet Archias*, *Ligarius*, *Marcellus*, *Manilian Law* (to count as two orations), the fourteenth *Philippic*. The student should also be familiar with the life of Cicero.

*Virgil.* ( $\frac{1}{2}$ -1).—Six books of the *Aeneid*. The student should be familiar with the life of Virgil and an account of his times and writings. A correct rythmical reading of the text is to be encouraged.

### GREEK

*Greek Grammar.* (1).—This should include a thorough grounding in some standard elementary Greek Grammar, such as White's *First Greek Book*, with translation from Xenophon's *Anabasis*, Book I.

*Xenophon's Anabasis.* (1-2).—Four books, accompanied by work in grammar and composition.

### GERMAN

*German Grammar.* (1).—The student should know the rudiments of grammar, be able to read prose at sight, and to translate simple English sentences into German.

*Advanced German.* (1-3).—The student should be able to read modern German prose and poetry at sight and to translate easy English narrative into German. A considerable amount of reading from such authors as Riehl, Heyse, Freytag, Baumbach, Heine, Goethe, and Schiller will be expected.

### FRENCH

*French Grammar.* (1).—The student should be familiar with elementary French grammar, with special attention to the irregular verbs. He should be able to read easy prose at sight and to translate simple English sentences into French.

*Advanced French.* (1-3).—The student should be able to read standard French prose and poetry at sight and to translate easy English narrative

into French. A considerable amount of reading from such authors as Daudet, Loti, Sandeau, Dumas, Augier, Labiche and Martin, and Hugo will be expected.

### SPANISH

*Spanish Grammar.* (1).—The student should be familiar with elementary Spanish grammar and should be able to read easy prose and to translate simple English sentences into Spanish.

*Advanced Spanish.* (1-3).—The student should be able to read standard Spanish prose and poetry at sight and to translate easy English narrative into Spanish.

## NATURAL SCIENCES

All of the courses in natural science should include at least two 80-minute periods of laboratory work each week.

*General Science.* (½-1).—The course should consist of an elementary study of the applications of science to the affairs of everyday life. Such topics as a mosquito and the weather, house-heating and ventilation, foods, water supply, hygiene, and disease preventions are types of the topics which should make up the course. It is not intended that the course should be organized as the special science, and it should not be organized with the idea of preparing students for work in the special sciences. The justification of the course must be in terms of its own intrinsic value as a training for life. This point of view is expressed in most of the late text-books on general science.

*Physiology.* (½-1).—This should include a thorough study of some standard high school text with note-books, drawings, individual laboratory instructions, and demonstration work.

*Physical Geography.* (½-1).—A thorough study of any standard high school text supplemented by laboratory exercises, will satisfy the requirements.

*Physics.* (½-1).—This should include a study of at least four of the following topics: mechanics of solids, liquids, and gases; sound, heat, light, electricity, and magnetism, based on some standard high school text and supplemented by laboratory exercises.

*Chemistry.* (½-1).—The full year's work should include a study of both the metals and non-metals, with laboratory experiments to illustrate the common chemical laws and the more simple chemical reactions.

*Biology.* (½-1).—A thorough study of any standard high school text supplemented by laboratory exercises will satisfy this requirement.

*Botany.* (½-1).—The course should follow as closely as possible the nature and work of plants during the changing seasons of the year. The major portion of the work should be with living plants, naming the common plants of the neighborhood, both cultivated and native, and studying plant parts from seed to maturity.

*Zoology.* (½-1).—Animals should be studied as living units in their relation to one another and their environments. This study should include developmental stages as well as the adult stage. The aim of the teacher should be to foster a love for animate nature and to develop accuracy in observation and description.

## VOCATIONAL SUBJECTS

### AGRICULTURE

*Plant Production.* (½-4).—This work should include the study of farm crops, seed selection, soils and soil fertility, diseases, and insects.

*Animal Production.* (½-4).—This includes the study of history of breeds, feeding, breeding, judging, live stock production and marketing, and diseases.

*Dairying.* (½-2).—Farm dairying, Babcock-testing, butter-making, and record keeping.

*General Horticulture.* (½-2).—Plant propagation, principles of fruit growing, vegetable gardening, diseases, and insects.

*Farm Mechanics, Rural Engineering.* (½-4).—This work should include farm shop work (both wood and forge), drawing, farm machinery,



farm motors, farm drainage, and farm buildings. Work should be especially applicable to farm practice.

*Farm Management, Rural Economics.* ( $\frac{1}{2}$ -1).—Farm accounting, project accounting, organization, and marketing.

### BUSINESS SUBJECTS

*Commercial Arithmetic.* ( $\frac{1}{4}$ ).—This should include a thorough study of some standard high school text such as Millis and Stone or Beeman and Smith, and should be studied during the third or fourth year, otherwise no credit will be allowed.

*Business Law.* ( $\frac{1}{4}$ ).—Text-book supplemented by study of a few typical cases, and practice in drawing up ordinary legal papers, such as bills, notes, checks, etc.

*Elementary Bookkeeping.* (1).—A text-book should be employed with exercises so arranged that no two pupils will do exactly the same work, and no credit should be allowed unless the work is done neatly, accurately, and at a satisfactory rate of speed. It is suggested that double periods be provided, and all work be done in class under the eye of the instructor. The set used should include the journal, cash book, sales book, ledger, check book, bank pass book, and trial balance book.

*Advanced Bookkeeping and Business Practice.* (1).—Thorough drill on standard business forms, such as bills, receipts, checks, and notes, also on the use and meaning of business symbols and abbreviations. The student should become acquainted with the bill and invoice book, and loose leaf and voucher systems of bookkeeping. Each student should carry on a business of his own, first as an individual, then as a partnership, and finally as a corporation. Credit on this course should mean that the student lacks only age and actual business experience to become a competent bookkeeper.

*Typewriting.* ( $\frac{1}{4}$ -1).—The student should have a complete mastery of the keyboard by the "touch method." The minimum speed at the end of a year should be at least forty words a minute. Thorough training should also be given in care of the machine, in modern methods of manifold, and in filing papers. One unit will be allowed for five periods of ninety minutes each a week for thirty-six weeks.

*Stenography.* (1-2).—The student should have a thorough knowledge of the fundamental principles of the system of shorthand studied, the word-signs and contractions, and the elements of phrasing. The minimum speed at the end of the first year should be sixty-five words per minute on correspondence dictation and fifty-five words per minute on general matter. Accuracy in reading shorthand notes is essential. To receive full credit at least two of the five periods each week must be double periods of ninety minutes each.

### FINE ARTS

*Music.* ( $\frac{1}{2}$ -2).—Credit will be granted in music to students from high schools whose music instructors are licensed, and whose courses are outlined by the State Music Teachers' Association. A year's work shall count as one-half unit, that is, a maximum of two entrance units shall be granted to students taking four years' work in music in the high school.

*Art and Drawing.* ( $\frac{1}{2}$ -2).—One unit will be allowed for five periods of ninety minutes each a week for thirty-six weeks.

### HOME ECONOMICS

*Food.* ( $\frac{1}{2}$ -3).—Should include the study of food stuffs and the principles of cooking, the preparation and service of meals; the proper food for children, adults, aged, and sick; cost of food; care of the food in the home. Laboratory and recitations.

*Clothing.* ( $\frac{1}{2}$ -3).—Types of materials best suited to articles or garments being made; skill in the different sewing processes, construction of garments and dresses; renovation of materials; cost of clothing; hygiene of dress; millinery.

*Home Making.* ( $\frac{1}{2}$ -1 $\frac{1}{2}$ ).—Care and sanitation of the home, house planning, furnishing, home management, home care of the sick, care of children.

Five periods—ninety minutes each—thirty-six weeks, count for one unit.

## MANUAL TRAINING

*Shop Work.* ( $\frac{1}{2}$ -4).—Credits will be allowed as follows: Two units in joinery, wood turning, and cabinet making;  $\frac{1}{2}$  unit in pattern making,  $\frac{1}{2}$  unit forging;  $\frac{1}{2}$  unit foundry;  $\frac{1}{2}$  to 2 units machine shop;  $\frac{1}{2}$  to 2 units printing;  $\frac{1}{2}$  unit for sheet metal work;  $\frac{1}{2}$  unit for electric wiring; 1 to 2 units for auto shop work.

*Mechanical Drawing.* ( $\frac{1}{2}$ -4).— $\frac{1}{2}$  to 2 units will be allowed for mechanical drawing,  $\frac{1}{2}$  to 2 units for machine drawing;  $\frac{1}{2}$  to 2 units for architectural drawing;  $\frac{1}{2}$  to 2 units for sheet metal drawing.

Five periods—ninety minutes each—thirty-six weeks, count for one unit.

## NORMAL TRAINING SUBJECTS

*Psychology.* ( $\frac{1}{2}$ -1).—The chief emphasis should be upon instinctive tendencies, habit formation, memory, association, economy of learning, the affective life, and the thought processes. Both general and educational psychology, forming the basis of the specific courses in educational theory and practice, should be stressed. The course should be based on some standard text such as Colvin and Bagley, or LaRue, correlated with supplementary readings.

*Classroom Management.* ( $\frac{1}{2}$ -1). A discussion of classroom organization, classroom routine, the daily program, etc., should be followed by an analysis of the principal types of teaching, technique of instruction, assignments, teaching how to study, and the art of questioning. Standard text such as Stayer, or Sears, or Bagley, together with abundant supplementary material, should be mastered.

*Special Methods, Observation and Practice.* ( $\frac{1}{2}$ -1).—Practice teaching should be preceded by systematic observation of classroom work. During the term in which the student undertakes practice teaching, it should be the dominating feature of the student's work. For the work in special methods some standard text such as Freeland, or Kendall and Mueck, or Betts should be studied.

## LIST OF ACCREDITED HIGH SCHOOLS OF ARKANSAS

(Correct to January 1, 1922. Another revision of these lists is made in June. All of these schools are fully accredited four-year high schools. The Class "A" list, with the exception of Mammoth Spring, is composed entirely of schools accredited by the Association of Colleges and Secondary Schools of the Southern States).

## CLASS "A"

Arkadelphia	Little Rock
Batesville	Lonoke
Blytheville	Magnolia
Central College Academy	Marianna
(Conway)	Monticello
Crescent College	Mammoth Spring
(Eureka Springs)	Nashville
Crossett	Newport
Dermott	North Little Rock
Earle	Ozark
Fayetteville	Paragould
Fordyce	Pine Bluff
Forrest City	Prescott
Fort Smith	Rogers

Fourth District Agr. School (Monticello)	Siloam Springs
Helena	Stuttgart
Hope	Texarkana
Hot Springs	University High School (Fayetteville)
Jonesboro	Van Buren
Lake Village	

*CLASS "B"*

Ashdown	Leslie
Augusta	Lewisville
Bearden	Malvern
Benton	Mansfield
Bentonville	McCrary
Berryville	McGehee
Booneville	Mena
Brinkley	Morrilton
Camden	Mountain Home College (Mt. Home)
Carlisle	Osceola
Charleston	Paris
Clarendon	Piggott
Conway	Rector
Corning	Russellville
DeQueen	Searcy
DeWitt	Sloan-Hendrix Academy (Imboden)
El Dorado	Springdale
England	Stamps
Eudora	Thornton
Eureka Springs	Tuckerman
Gentry	Waldo
Gravette	Waldron
Greenwood	Walnut Ridge
Hamburg	Warren
Harrishburg	Watson Chapel School (Pine Bluff, R. 1)
Harrison	Wilson
Hartford	Wynne
Heber Springs	
Huttig	
Junction City	

ADMISSION AS A SPECIAL STUDENT

The dean of the college may, in his discretion, permit a student who has presented fourteen or more entrance units, to classify as a special student.

A person of mature age, who is not a candidate for a degree, and who does not present the number of units necessary for entrance, may, under certain conditions, be admitted as a special student. Application for admission to the University by this method should be made to the University Examiner. The minimum age limit upon which any person will be permitted to enroll as a special student without presentation of entrance units

is twenty years, except in the trade courses in the College of Engineering, and in the short course in the College of Agriculture, where it is eighteen and sixteen, respectively.

Special students are subject to the same regulations as other undergraduate students. They may become candidates for a degree by complying with the necessary regulations. No person will be permitted to register as a special student for more than one year without the permission of the dean of the college concerned. Admission as a special student does not exempt the student from Military Art in the case of men students, or from Physical Education in the case of women students.

### ADMISSION TO ADVANCED STANDING

Students presenting transcripts of credits from institutions of recognized standing may receive credit without discount to the extent that the subjects offered for advanced standing may be counted in fulfilling the requirements for a degree in the University of Arkansas. In no case may an undergraduate student receive credit for more than three full years' work. The University reserves the right to revise an account of advanced standing after a student has been in residence a year.

Transcripts of credits from institutions not of recognized standing may be dealt with in one of two ways, at the discretion of the University Examiner. (1) A student presenting a transcript may be given a certain amount of provisional credit which he may hold free from qualifications, after he has completed in the University of Arkansas further work in those subjects for which he is asking advanced credit. (2) Such a transcript may be refused altogether, in which case the transcript is held merely as evidence that the student has studied the subject, and is entitled to make application for an examination for advanced standing. No student shall be admitted to examination for advanced standing in any subject unless he can present documentary evidence that he has at some time studied that subject. An application for advanced standing by examination must be made within six weeks after the student first enters the University.

All transcripts of credits should be sent to the University Examiner before the opening of the term in which the student expects to enter, or should be presented to the Examiner immediately upon the student's arrival.

Only officially signed transcripts will be accepted for evaluation. They should include a complete record of the courses pursued, with the number of weeks and hours a week spent upon each subject. If occasion arises, the Examiner may have the right to demand that a catalog of the years covered by the transcript be also presented.

### ADMISSION TO GRADUATE STANDING

A student seeking admission to graduate standing must have completed an undergraduate course of four years, or its equivalent.



lent, at the University of Arkansas, or at some other college or university of equal standing. Such a student should present an official transcript of his complete undergraduate record to the University Examiner, who will forward his name to the Senate Committee on Graduate Study with recommendation that he be admitted to graduate standing, or be not admitted as his record may seem to justify. Before a student may become a candidate for an advanced degree, his petition must have the approval of the Senate Committee on Graduate Standing and of the dean of the college in which he expects to study.

## FEES AND EXPENSES

### BENEFICIARY APPOINTMENTS

Free tuition is granted, under a state law, to one thousand students residing within the state. The appointments are apportioned to the various counties according to population, and are obtained from the county judge. Those who are unable to obtain appointments from the county judge may receive them from the President of the University until the number of one thousand is reached.

### FEES

All fees must be paid in advance to the Auditor at the beginning of each term. No student will be allowed to attend classes until his fees are paid.

Matriculation, student activities, and library fee (paid by all students) each term.....\$ 8 00

Tuition fee (paid by all non-resident students and by others who do not hold beneficiary appointments) each term ..... 10 00

Diploma fee (payable at graduation)..... 10 00

Certificate fee (payable at graduation)..... 5.00

A fee of one dollar will be charged to students entering late, for each day beyond the close of registration. This fee will not be charged against new students.

A laboratory fee is required of all students pursuing laboratory courses. Students who break or destroy apparatus or equipment in the laboratories will be required to pay the cost of it.

The amounts of laboratory fees, fees for music, etc., are given under the proper courses.

### EXPENSES

The following estimates, based upon data secured from stu-

dents recently in attendance, will give some idea of the cost of attending the University for a year.

	Low	Moderate	Liberal
Board, laundry, heat, and light.....	\$290	\$325	\$400
Books, instruments, and other supplies.	40	50	55
Other expenses .....	50	60	100
Matriculation fee and student activities fee.....	24	24	24
	<hr/> \$404	<hr/> \$459	<hr/> \$579

### BOARD AND ROOM

The men's dormitories provide accommodation for about two hundred and fifty students. The rooms are furnished with beds, springs, mattresses, chairs, and tables. A charge of one dollar a month from September to June, inclusive, for each occupant is made. The recreation rooms and parlors in Hill Hall have been reconstructed, refurnished, and made very attractive. Board, heat, light, laundry, water, and janitor service are provided at cost, which is about \$30.00 a month.

The women's dormitory provides accommodation for about one hundred and twenty students. For rooms, furnished except for linen, towels, and bedding, a charge of one dollar a month from September to June, inclusive, for each occupant is made. The cost of board, including light, water, heat, and janitor service, is about \$30.00 a month.

Reservations for rooms in any of the dormitories may be made by application either to the Auditor of the University, or to the matrons of the dormitories. In order to hold a room, however, it will be necessary for the applicant to deposit a fee of \$5.00 with the Auditor of the University on or before September 1. The reservation fee will be credited to the student on his room rent. Room reservation fees deposited before the first of September are returnable before that date. After September 1 the fee is not returnable.

Lodging in private homes near the University may also be had at reasonable rates. Boarding places, other than the dormitories, must be selected from a list approved by the University authorities, and may not be changed except by the consent of the Dean of Women, or of the President.

### OPPORTUNITY FOR SELF SUPPORT

About one-fourth of the students in the University are earning some part of their expenses by assisting in the dormitory dining-rooms and University offices, or doing work for townspeople. A large number secure employment through the assistance of the Y. M. C. A. or Y. W. C. A. Every effort is made to secure employment for students desiring work. A student should, however, ordinarily be able to bring with him or to secure during the year at least \$150.00.

### STUDENT LOAN FUND

The Arkansas Federation of Women's Clubs has established a loan fund for worthy students, whereby young men and women can obtain financial assistance to continue their education. Further information may be had by writing to Mrs. A. Marinoni, Chairman, Fayetteville, Arkansas.

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## ORGANIZATIONS AND ACTIVITIES

### CONVOCATION

Convocation exercises for the faculty and students are held in the auditorium on the first floor of University Hall at the call of the President. The programs consist of addresses and lectures by men in public life, discussions of University affairs and problems, and musical numbers. Attendance at convocation exercises is required of all freshmen and sophomores.

### CHRISTIAN ASSOCIATIONS

The Christian Associations stand for spiritual, mental, social, and physical development. Their mission is to befriend and inspire the students, and to train them for religious, as well as business, social, and intellectual leadership after leaving the University. Each association employs a general secretary who gives full time to the work.

The Y. M. C. A. holds religious meetings every Thursday evening, and Gospel teams are sent out on many Sunday afternoons to hold services at nearby country churches. A strong Friendship Council is another part of the work. A number of delegates go to the Student conferences, held each summer at Hollister, Mo.

The Y. W. C. A. has an office in University Hall, fitted in a home-like manner, and open at all times to the women students. Weekly vesper services are held on Thursday evening in the Y. W. C. A. room at Carnall Hall, and Sunday morning matins are observed. At the beginning of the year the Big Sister work helps freshmen in getting adjusted to their new environment. The University Y. W. C. A. helps to support a secretary in Shanghai, China.

Much of the work of the Associations is carried on jointly. A mission Sunday School in a suburb of Fayetteville is directed by students, and during the year socials and a Christmas tree are given. Both Associations have Bible discussion groups led by faculty members and students. Special emphasis is put on World Fellowship work, and a Student Volunteer Band has been organized.

The social life of the University is much helped by the Associations, which give a reception at the beginning of the year, in

honor of the new faculty members and students. Hallowe'en, Valentine, and other socials, are given.

Speakers of national and international reputation are brought to the University under Association auspices, and strong emphasis is placed on evangelistic and life-work campaigns. No other organizations on the campus have so large a field of usefulness or so unifying an influence. Practically every student is an Association member.

## DEBATE

The University holds annual debates with other collegiate institutions, each institution being represented by one team on the affirmative side of the question and one team on the negative. The debates are held usually during the second week of April. Each member of the intercollegiate debating team is awarded an "A" to be worn on a fob or pin in recognition of his services, and is allowed four term hours of credit toward a degree (see Public Speaking 542).

## ATHLETICS

The Athletic Board of Control, composed of four members of the faculty and three students, has general charge of athletics. The Director of Athletics, assisted by special coaches for football and baseball, has the immediate supervision of all athletic activities for men students. The instructor in physical education for women supervises athletics for women.

The University is a member of the Southwest Intercollegiate Athletic Conference, and as such is governed by the rules of the Conference in all intercollegiate athletic contests. Some of the more important rules of eligibility are:

1. No student shall participate in any intercollegiate athletics until one year from the date of his registration in the institution which he represents, except as a member of the freshman team. The University provides for the coaching of a freshman squad and arranges a schedule of games for the freshman football team.

2. No person not an amateur shall be allowed to represent any member of the Conference in any athletic contest.

3. A student transferring from one institution of collegiate rank to another shall not be eligible to compete in intercollegiate athletics until he has been a student for one year in the institution to which he transfers.

4. No person shall be permitted to participate in intercollegiate athletics who is not a student in good and regular standing, who is not taking at least the minimum amount of work prescribed in the regular course of study in his institution, and who is not making a passing grade in at least two-thirds of the normal amount of work prescribed.

5. No student shall be eligible to compete in intercollegiate athletics, who, during his last semester in attendance, failed to pass two-thirds of the normal work for his course.



6. If a man be dropped from an institution of the Conference on account of scholastic deficiency, he shall not be eligible to compete in athletics until he shall have completed one full year's work, passing two-thirds of the work taken.

## UNIVERSITY ORGANIZATIONS

The *American Institute of Electrical Engineers*, local branch, meets weekly for the presentation of original papers and discussion of professional topics. All students interested in electrical engineering are eligible to membership.

The *American Association of Engineers*, local chapter, meets monthly. Its purpose is to promote the interests of the engineering profession, to make it more useful in public affairs, and to aid its members in securing employment.

The *University Society of Civil Engineers* meets weekly for the presentation of original papers and the discussion of current technical literature.

The *American Society of Mechanical Engineers*, local section, meets bi-weekly, for the presentation of original papers and discussion of professional topics. Occasionally a lecture by some prominent engineer takes the place of the regular program.

The *Agricultural Club* meets weekly to discuss topics of practical and theoretical interest to students of agriculture and current topics of general interest. Occasional lectures by experts in agriculture take the place of the regular programs.

The *Education Club* meets bi-weekly for the discussion of problems of educational research being conducted by the more advanced students of the group, and the presentation by them, and by faculty members and invited guests of prominence in the field of education, of modern discoveries and methods.

The *Home Economics Club* is an organization of students who desire to promote the standards and ideals of home economics, and who wish to create a basis for wholesome social development.

The *Pre-Medical Club* is composed of students who are planning to take up the study of medicine. The object of the club is to give these students an opportunity of hearing lectures on medical subjects.

The *Math Club* meets bi-weekly for programs of talks and papers on topics of interest in this field.

The *Science Club* meets bi-weekly for discussions, lectures, and papers by interesting speakers in the current scientific world.

The *University Orchestra* meets weekly for ensemble playing of lighter music and of standard overtures. Membership is competitive.

The *University Band* plays weekly and takes part in all outdoor functions, parades, etc., in the University. Membership is competitive.

The *Garland-Lee*, and *Periclean* literary societies for men

meet Saturday evenings to render programs consisting of prepared and extemporaneous debates, speeches, and readings.

The *Sapphic* Literary society for women meets Thursday afternoons.

The *Black Friars* meets bi-weekly for the study of plays, classic and current, and for general information in matters pertaining to the drama and to the theater. Membership in the society is limited to twenty-five.

The *Glee Club* is open to all men students. Membership is determined by competition. A trip is taken in the state every spring.

## HONOR SOCIETIES

*Tau Beta Pi* is restricted to engineering students. The object of the organization is to encourage scholarship and to foster liberal culture among engineering students. Eligibility to membership is based upon high scholarship and character.

*Skull and Torch* is restricted to juniors and seniors in the College of Arts and Sciences and the College of Education who are candidates for a degree. Eligibility to membership is based upon high scholarship and personal character.

*Alpha Zeta* is restricted to upperclassmen in the College of Agriculture. Eligibility to membership is based upon high scholarship and character.

*Pi Kappa* is an honorary sorority for young women interested in journalism. Election to *Pi Kappa* comes as a reward for consistent and efficient work on University publications.

*Pi Delta Epsilon* is restricted to upperclassmen. The purpose of the organization is to promote the interest of college journalism by making membership conditional upon faithful and efficient service on college publications.

*Tau Kappa Alpha* is restricted to intercollegiate orators and debaters. The aim of the organization is to encourage and reward meritorious effort in public speaking.

*Phi Alpha Theta* is an honorary historical society based on interest and achievement in its chosen field.

*Scabbard and Blade* is restricted to cadet officers. Eligibility to membership is based upon efficiency, personal character and influence, and interest in military affairs.

## ALUMNI ASSOCIATION

The Alumni Association of the University of Arkansas on June 16, 1919 adopted a new constitution which extended its membership to include all former students in good standing who were regularly enrolled in the University for one year. The association meets annually on Monday of Commencement week. Dr. A. M. Harding, Director of General Extension, is serving as general secretary, with the assistance of an office secretary

provided by the association. The alumni bulletin is published under the direction of the general secretary.

Branch associations have been organized in Little Rock, Fort Smith, and Jonesboro. Plans have been made for similar units in other parts of Arkansas and in other states.

## STUDENT PUBLICATIONS

*The Arkansas Traveler*, published weekly by student editors, is devoted to current news and matters of interest to the University as a whole.

*The Redneck* is published annually by the junior class. It contains pictures of individuals, classes, and organizations and serves as a history of the school year.

*The Arkansas Engineer* is issued quarterly by the students of the College of Engineering.

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# HONORS, SCHOLARSHIPS, AND PRIZES

## SCHOLARSHIPS

*Women's Clubs Scholarships.* The Federation of Women's Clubs of Arkansas offers two annual scholarships, one for men and one for women. Competitive examinations are held in June by the county examiner or county superintendent under the direction of University authorities. Persons who wish to take the examination should notify the University Examiner before May 1. Graduates of the high schools of Little Rock, Fort Smith, Helena, Texarkana, Pine Bluff, and Hot Springs are not eligible. The scholarships pay approximately \$150 each.

*Daughters of the Confederacy Scholarship.* The Daughters of the Confederacy of Arkansas have provided one scholarship.

*Elks' Scholarship.* The Benevolent and Protective Order of Elks has provided a scholarship to be awarded by the Federation of Women's Clubs. Correspondence should be addressed to Mrs. Edwin Bevens, Helena, Arkansas.

*University Scholarships.* The Board of Trustees has provided one scholarship annually to be awarded to the honor graduate of each fully accredited public high school within the state. In case a particular high school does not select any member of the graduating class as the honor graduate, the scholarship shall be awarded to the student who has made the highest average in his studies for the entire high school course. The scholarship grants exemption from the payment of matriculation, student activities, and library fees.

*Departmental Scholarships.* not exceeding ten in number, and paying approximately \$150 a year, will be awarded each year to graduate students and seniors. These scholarships are open

to graduates of the University of Arkansas and of other institutions. In return for the stipend received the student will be expected to give a reasonable amount of assistance in the work of the department. Students desiring to apply for these scholarships should make application to the head of the department having charge of the field of work in which the student wishes to specialize.

## HONORS

By a system of departmental, class, and graduation honors, the University gives official recognition of attainments in scholarship.

*Departmental Honors.* To be eligible for departmental honors, a student must have passed in at least twenty-seven term hours in the particular department with a grade of "A." From the students who are eligible for honors in a department, the teaching force of that department will select the first and second. As a basis for this selection, all of the work done in the department, and general class standing, if necessary, will be considered.

*Class Honors.* Any student who passes in at least twenty-four hours of collegiate work, receives a grade of "A" in not less than eighteen hours, and ranks not less than "C" in any course, will receive class honors.

*Honors at Graduation.* Any student who makes class honors in both his junior and senior years will be termed an honor graduate.

All Honors are published at commencement, and in the catalog for the following year.

All students who are honor graduates have the fact noted in their diplomas.

## PRIZES

*William Jennings Bryan Prize.* The Hon. William Jennings Bryan has given to the University the sum of \$250, the interest on which is offered annually as a prize for the best essay on some topic relating to the problems of government. The contest is open to juniors and seniors. Further information may be obtained from the professor of economics and sociology.

*Troy W. and Jessie Lewis Economic Essay Prize.* Mr. Troy W. Lewis, of Little Rock, offers annually a prize of \$10.00 to that member of the senior class who writes and submits the best essay on some economic subject. Further information may be obtained from the executive secretary to the president of the University.

*Chi Omega Prize.* The Chi Omega sorority offers at each institution at which it has a chapter an annual prize of \$15.00 for the best essay on some topic connected with the study of sociology. The contest is open to all women of the University who are pursuing courses in economics or sociology.

*Brough Debating Medal.* Ex-Governor Charles Hillman



Brough, formerly head of the Department of Economics and Sociology at the University, offers a medal of the value of \$20.00, or a cash prize of \$20.00, for excellence in debate, to be contested for by two representatives of each of the literary societies. Under the conditions of the award, two debates must be held during the year, one formal, in which the speeches are prepared, valued at sixty per cent, and one informal, in which the speeches are extemporaneous, valued at forty per cent. These debates are designed to train students in the art of forensic speaking and to promote a friendly rivalry between the literary societies.

*Engineers' Prizes.* The Arkansas Chapter of the American Association of Engineers offers annually two prizes as follows: A prize of \$20.00 will be given each year for the best thesis on an Engineering subject written by an electrical, mechanical, or civil engineering student. Copies of the completed thesis are to be forwarded to the Secretary of this Association at Little Rock, Arkansas. A prize of \$10.00 will be given each year to any engineering student who wins first place honors in an oratorical contest upon a subject, or subjects, foreign to engineering work.

*Science Club Prize.* The Science Club of the University offers a prize of a medal, or of scientific books or apparatus of like value, to a member of the senior class upon the basis of his grades in science courses pursued in residence at the University up to the beginning of the last term of his senior year.

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## RULES AND REGULATIONS

Each student at the time of registration is given a copy of the rules and regulations for undergraduate students, for the observance of which he will be held strictly responsible.

### GOVERNMENT

The government of the University is vested primarily in a Board of Trustees, consisting of the Governor of the State and the State Superintendent of Public Instruction, as ex-officio members, and seven other members, appointed by the Governor for a term of six years.

The administration of the University is vested in the President, the University Council, the University Senate, and the faculties and deans of the various colleges.

The President is the administrative head of the University. The University Council is composed of the President, the deans of the several colleges, and four other members, appointed by the President. The Council is the central executive body of the University and is advisory to the President.

The University Senate is composed of the President, the

Registrar, the deans, and all heads of departments and full professors. The Senate is the general legislative body of the University.

The faculty of each college within the University has jurisdiction, subject to higher University authority, over all matters that concern exclusively that college.

The dean of each college is responsible for the carrying out of all University regulations within his college. The Dean of Women acts as an advisor to women undergraduate students and is charged with the general care and conduct of these students.

## DISCIPLINE AND ATTENDANCE

Students are required to be diligent in the pursuit of their studies and regular in their attendance at class. Those who fail to meet these requirements will be requested to withdraw.

Students are required to attend all meetings and examinations of courses for which they are registered. For each eleven credit hour absence the student will be required to complete one extra hour for graduation.

Absences with athletic teams, debating teams, or other organizations which leave the University on official work, and absences of individuals who are permitted by the President to leave the University on official business pertaining to the University, or some organization thereof, are counted at half rate, provided the coach, manager, or other person in charge, files with the Registrar, before leaving the University, a certificate, upon a form prescribed by the University, for each student who proposes to make the trip.

Absences due to sickness of the student, or of a member of his immediate family, or to death in the student's immediate family, count at half rate, provided the student files in the office of the Registrar, not later than one week after his return to classes, upon a form prescribed by the University, a statement of the cause of his absence verified by the certificate of the attending physician. Such certificate forms may be obtained from the office of the Registrar.

Students incurring absences in accordance with the above regulations may have the privilege of making up the lost recitations, as evidenced by turning in written work, or in some other manner satisfactory to the instructor concerned. When such lost recitations have been made up, the remaining absences are removed. Applications for the privilege of making up absences must be made to the Registrar *within one week* from the time of return to the University.

Each absence on the first day of any term or on the day preceding or following any holiday, counts as four, unless the student files with the Registrar a statement showing that such

absence was caused by illness, death in the family, or some other cause which the Registrar may deem adequate.

The Registrar will, at any time he may deem advisable, report to the Committee on Attendance and Discipline any student who absents himself from his University duties without good reason.

A student who is absent from an examination must explain his absence to the University Examiner within a time set by the Examiner. Failing to do so, he will be given a grade of "F" in the course.

In accordance with state law, all students, members of the faculty, and employees of the University are required to present certificates of successful vaccination. Students who fail to present certificates will not be allowed to attend classes.

## REGISTRATION

Students are required to matriculate and classify before the beginning of each term. Those who enter a course late will be held accountable for all work of the course previous to their entrance.

## STUDENTS' WORK

A student in his first term at the University, unless he is registered in a class higher than the freshman, is not permitted to carry a greater number of hours than the normal number required in his course, provided that the dean of the college concerned may at his discretion allow such student to carry one hour more than the maximum prescribed. Students who have done work of an exceptionally high grade in the high school may be exempted from the operation of this rule by permission of the dean of the college concerned.

A freshman student who enters conditionally will not be allowed to carry more than the normal number of hours required in his course. In computing this there will be reckoned the work that he is doing to make up entrance conditions.

A student who has failed in any subject (not including physical education and military art) in any term will not be allowed the next following term to carry more than the normal number of hours required in his course.

The dean of the college in which a student is enrolled may at his discretion limit the number of hours that the student will be allowed to carry.

A student may enroll in two classes when a conflict occurs only by permission of the dean of the college and of the heads of the departments concerned. In no such case will a student be allowed to lose more than one-third of the time devoted to recitation in either class. The student will be charged with all absences incurred through such conflict.

## COURSE SYMBOLS

The numbers of courses which are taken to remedy entrance deficiencies contain two digits only, the first of which shows the number of hours of credit a week and the second distinguishes the course.

The numbers of the regular college courses contain three digits: the first indicates the college year, the second the number of hours of credit a week; the third, the particular course.

These numbers are distributed as follows:

101 to 199—Courses which are open to freshmen.

201 to 299—Courses which are required of sophomores in one or more of the colleges, or elective for sophomores, juniors, or seniors.

301 to 399—Courses which are required of juniors in one or more of the colleges, or elective for juniors and seniors.

401 to 499—Courses which are required of seniors in one or more of the colleges, or elective for seniors.

501 up —Open electives for sophomores, juniors, and seniors.

Courses with double or triple numbers, as English 131 (132) (133) run through two or three terms, respectively, and credit will not be allowed until the final term's work is completed.

Courses indicated by a star (\*) may be elected by graduate students for credit towards an advanced degree

## CREDIT HOURS

The number of term credit hours allowed in each course is identical with the number of hours a week spent upon that course except that in the laboratory, shop, or field work two to three hours will be considered equivalent to one hour of lecture or recitation.

## GRADING AND EXAMINATIONS

The following grading system is in effect: A, B, C, D (passing grades), E (conditional failure), F (absolute failure). A student receiving a grade of "E" may remove it by an examination. A student receiving a grade of "F" will not receive credit for the course except by repeating it in class. A student receiving a grade of "D" in any subject will have an opportunity to raise this grade by passing an examination. Should he elect to take such examination, the grade made upon the examination will become a part of his permanent record in place of the first grade made.

Examinations to raise the grade "D" or to remove the grade "E" will be given on Monday and Tuesday of registration week in the student's next succeeding college year. In the case of seniors applying for graduation, a re-examination either to remove the grade "E" or to raise the grade "D" may be given



in the same year prior to commencement at a time set by the Examiner.

Seniors applying for graduation and carrying the requisite work to entitle them to graduation, may, upon the recommendation of the instructors concerned, be excused from final examinations in each course in which their grade is as high as "B." Notices of exemption are sent by the Examiner near the end of the term.

If for any reason a student drops a course after the sixth week of the term, and if the student's work during the time that he attended the course was below the grade of "D," there will be entered on his record a grade of "F" in that course; if "D" or above, he will be marked "Excused" in that course.

In a "model" class (one in which all qualities of work are represented), the following scale of percentages in the different grades may be taken as an approximate:

- A, not more than ten per cent;
- B, not more than twenty per cent;
- C, from forty to fifty per cent;
- D, approximately twenty per cent;
- E and F combined, not more than ten per cent.

## REQUIREMENTS FOR GRADUATION

In all divisions of the University, except the College of Arts and Sciences, no student will be graduated who has a failing grade on his record which has not been satisfactorily repeated in class, removed by examination, or excused by the faculty of the college concerned.

No student will be allowed to graduate from any division of the University if more than twenty-five per cent of his work is of the "D" grade.

In addition to completing the prescribed course of study, candidates for a degree are required to do at least the work of the senior year in residence.

## UNIVERSITY AUDITING

The financial accounts of all student organizations handling more than fifty dollars per annum are audited by the executive secretary to the President. A system whereby all checks must be countersigned by this official offers an opportunity for the fullest publicity and develops a sense of financial responsibility in student treasurers. The combined funds draw interest on deposit, which is divided *pro rata* among the organizations.

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## COLLEGE OF ARTS AND SCIENCES

The object of the courses offered in the College of Arts and Sciences is to cover the broad field of general university study, including ancient and modern languages and literatures, history

and the social sciences, mathematics, the natural sciences, and the fine arts. It aims to afford the student an opportunity to gain a broad, cultural education, as well as to equip himself for further study in more technical fields.

## ADMISSION

For a detailed statement of the entrance requirements and a description of the subjects accepted for entrance see previous pages.

## GRADE POINTS

Grade points are awarded on the following basis:

For grade A, 6 points for each hour.

For grade B, 4 points for each hour.

For grade C, 2 points for each hour.

For grade D, credit, but no points.

For grade E, 1 negative point for each hour.

For grade F, 2 negative points for each hour.

Twice as many points will be required for graduation as term hours of credit. If additional work is required for any cause, additional grade points will be necessary at the rate of two points for each term hour.

No change in grade points will be allowed unless the subject be repeated in class.

In case of exemption from final examination, grade points will be granted as for grade of "B."

## COURSES OF STUDY

The College of Arts and Sciences offers four-year courses leading to the degree of *Bachelor of Arts* (B. A.), *Bachelor of Science* (B. S.), and *Bachelor of Music* (B. M.); a graduate course leading to the degree of *Master of Arts*, and special courses in music leading to a diploma.

Candidates for degrees, who wish to teach in the schools of any state which require professional preparation of its teachers, should take as part of their elective work the courses mentioned by the College of Education. They will then receive both the degree and the teachers' certificate which will entitle them to teach in any school in the state without being required to pass examinations for a teacher's license.

## REQUIREMENTS FOR DEGREES

### BACHELOR OF ARTS

The candidate must meet the entrance, residence, and registration requirements and must complete satisfactorily at least two hundred one term hours in approved courses, to be chosen with the following restrictions:

1. Prescribed courses as follows: English 131 (132) (133), nine hours; Military Art, six hours (for men), or Physical Education, six hours (for women).

2. Elective courses to be chosen from the following groups, with the restrictions noted below:

Group 1: English, French, German, Greek, Italian, Latin, and Spanish.

Group 2: Astronomy, Botany, Chemistry, Geology, Mathematics, Physics, and Zoology.

Group 3: Economics, Education, History, Philosophy, Political Science, Psychology, and Sociology.

Group 4: Agriculture, Engineering, Fine Arts, Law, Medicine, Home Economics, and Stenography.

a. The candidate may elect not more than sixty hours in any one subject, and not more than one hundred twenty hours from any one group. At least twenty-seven hours must be elected from group 1, and fifty-four hours from groups 2 and 3 combined, with not less than eighteen hours from either group 2 or group 3 (provided that at least twenty-seven hours exclusive of any course or courses offered from any other college in the University may be elected from group 3), and not more than twenty-seven may be elected from group 4. A maximum of thirty-six term hours may be offered from the College of Education toward the degree of Bachelor of Arts.

b. No elementary course in science can apply toward requirements of group 2 unless it contains at least nine term hours.

c. The candidate must select, not earlier than the beginning of his sophomore year, and not later than the beginning of his junior year, one major subject, to be chosen from group 1, 2, or 3, in which he must complete not less than forty-five hours, and two minor subjects, in which he must complete not less than twenty-seven and eighteen hours respectively, subject to the approval of the candidate's major professor and the dean of the college. A description of the major requirements of each department will be found under the departmental statements.

d. The candidate will be required to complete, in the combined high school and college courses, at least thirty hours of one foreign language, at least nine hours of which must be taken in college classes. In computing the total, each unit of high school work will count as equivalent to six hours of college work. The student must continue his language study until his requirement is satisfied, which, in case of a modern language, means a satisfactory working knowledge of that language.

e. The candidate must conform as closely as possible to the following schedule in the distribution of his work.

*Freshman Year*

	CREDIT HOURS		
	FALL	WINTER	SPRING
English 131, 132, 133.....	3	3	3
Military Art 111, 112, 113 (or)			
Physical Education 111, 112, 113.....	1	1	1
*Elective .....	12	12	12
	16	16	16

*Sophomore Year*

Military Art 211, 212, 213 (or)			
Physical Education 211, 212, 213 .....	1	1	1
*Elective .....	16	16	16
	17	17	17

*Junior Year*

*Elective .....	17	17	17
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*Senior Year*

*Elective .....	17	17	17
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*BACHELOR OF SCIENCE**Freshman Year\**

English 131-3 — 9 hours.

Military Art 111-3 — 3 hours.

Science, 24 to 27 hours from:

Botany 141-143.

Chemistry 141-143 or 144-145.

Geology 147-149.

Mathematics 154-155, 156, 157.

Physics 141-143 or 144-146.

Zoology 144-146.

Electives from:

Foreign Languages.

Mathematics.

History.

Art.

Mechanical Drawing.

*Sophomore Year*

Military Art. Major or Minor subject in Science, 9-12 hours

Science, 24 to 27 hours from:

Botany 141-143.

Chemistry 141-143 or 144-145.

Geology 147-149.

Mathematics 154, 155, 156, 157.

Physics 141-143 or 144-146.

Zoology 144-146.

\*Note.—One subject other than English begun in high school must be continued in the Freshman year.

\*Note II.—The total of Foreign Language must include 24 hours in one or two foreign languages, including 12 hours which must be taken in college classes.



## Electives from:

Foreign Languages.  
 Psychology.  
 Economics.  
 History.

*Junior Year*

Major Subject.  
 Minor Subject.  
 Foreign Language.\*

## Elective:

Education  
 English Composition (advanced)  
 Any subject accepted for A. B.  
 degree

{ In Junior  
 or  
 Senior  
 Years

*Senior Year*

Completion of all Major and Minor requirements as follows:

Plan I: Major Science no less than 54 hours (as in present Chemistry course); two minor sciences no less than 45 hours.

Plan II: Major Science no less than 45 hours; two minor sciences no less than 54 hours.

Completion of a total of at least 111 hours of science courses.

Completion of no less than 18 hours in Group III of B. A. course (9 hours, exclusive of Education) during four years.

Completion of any language requirements not previously absolved.

## PREMEDICAL COURSE

Students who have completed no less than three full years of college work, including the subjects which are required for admission to the Medical College of the University of Arkansas or any standard approved Medical College, may offer the first year's work done at the Medical College to fulfill the requirements of the senior year at the University of Arkansas.

Such students should make application to the dean of the College of Arts and Sciences before April 1 of the year in which the degree is expected. The degree will be conferred upon official advice from the registrar or dean of the Medical College, including a transcript of the student's record, or a certificate setting forth the fact that the work completed constitutes a full year's work satisfactorily completed in Medical College.

The subjects included in the curriculum of such students and the electives chosen during the junior year must include subjects in Groups 1, 2, or 3 of the catalog, so selected that the

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\*Note III.—By the end of the junior year at least four general introductory courses of 12 hours each in the laboratory sciences must be completed.

student will be able to enter the particular Medical College of his choice with the necessary prerequisites in every subject, and must aggregate a total of 150 hours.

All standard medical schools now require a minimum of two years of college work for entrance. The curriculum for these first two years is as follows:

### *Freshman Year*

Chemistry .....	141, 142, 143
French .....	141, 142, 143
or German .....	141, 142, 143
Zoology or Botany .....	144, 145, 146
English .....	131, 132, 133
Military Art .....	111, 112, 113

### *Sophomore Year*

Chemistry .....	251, 354, 355
French .....	331, 332, 333
or German .....	231, 232, 233
Botany or Zoology .....	141, 142, 143
Physics .....	141, 142, 143
Military Art .....	211, 212, 213

Wherever possible it is decidedly preferable for a student to spend three or four years in premedical work at the University. In such cases one of the sciences listed in the sophomore year should be postponed and an elective substituted. For the third and fourth years further work in the subjects above mentioned, as well as in Latin, Psychology, Mathematics.

### *BACHELOR OF MUSIC*

In the following curriculum, majors and minors must be drawn from practical music—piano, pipe organ, violin, or voice.

<i>Freshman</i>	Hrs. Each Term	<i>Sophomore</i>	Hrs. Each Term
Major Music .....	2	Major Music .....	2
Harmony 1 .....	1	Physical Education .....	1
Appreciation 1 .....	1	Minor Music .....	2
Public School Music.....	2	Public School Music.....	2
Foreign Language .....	4	Harmony 2 .....	1
English .....	3	History of Music.....	1
History .....	3	Foreign Language .....	4
Physical Education .....	1	English .....	4
	17		17
<i>Junior</i>	Hrs. Each Term	<i>Senior</i>	Hrs. Each Term
Major Music .....	2	Thesis .....	1
Minor Music .....	2	Recital .....	1
Counterpoint .....	1	Canon and Fugue.....	2
Form and Analysis.....	2	Selection and Interpretation...	2
Appreciation 2 .....	1	Pedagogy (Music) .....	2
Ensemble Music .....	2	Major Music .....	2
Electives .....	3	Electives .....	6
Psychology .....	4	Appreciation 3 .....	1
	17		17

Choral singing is offered each year during the winter and spring terms as an elective, two hours each week.

### MASTER OF ARTS

The degree of Master of Arts is granted for graduate work based upon an undergraduate course of four years, with the degree of *Bachelor of Arts*, completed at this University, or another college or university of equal standing. Before a student may become a candidate for the degree, however, his petition for admission to graduate standing must have the approval of the Senate Committee on Graduate Study and the dean of the college.

1. The minimum time in which a candidate may be permitted to complete the degree is one academic year. In individual cases, where the committee deems it necessary, more than one year may be required.

2. The candidate is required to complete one major subject and not more than two minor subjects in closely related courses. The major subject, including, with the thesis, at least twenty-four credit hours, must be one in which the candidate has received credit in his undergraduate course for at least thirty-six credit hours. The minor subjects, occupying together eighteen credit hours, must be those in which he has received credit in his undergraduate course for at least eighteen credit hours each. The choice of the candidate's major and minors is subject to the approval of the committee, the dean of the college, and the major professor.

3. Forty-two of the forty-eight hours required of the candidate must be regular classroom work. Candidates who are graduates of this University may pursue one-half of the required work by correspondence, provided that their undergraduate records are satisfactory to the committee and to the dean of the college.

4. A student may be admitted to graduate standing without becoming a candidate for a degree, by permission of the committee and the dean of the college.

### SPECIAL COURSES IN THE DEPARTMENT OF MUSIC

The department of Music offers special courses, the completion of which is attested to by a diploma. The purposes of these courses is to give opportunity to persons who do not desire to become candidates for a degree, but who wish to do special work in music, together with a small amount of work in courses of a general cultural nature, in preparation for teaching, or as a basis for further study.

Candidates for a diploma in music must meet the entrance, residence, and registration requirements and must complete satisfactorily the following courses of study. Students who receive this diploma must show evidence of four years of college training in music.

*First Year*

	CREDIT HOURS		
	FALL	WINTER	SPRING
English 141, (142) (143).....	4	4	4
Foreign Language .....	3-5	3-5	3-5
History or Economics.....	3-5	3-5	3-5
Theory of Music 111, (112) (113).....	1	1	1
Theory of Music 114, (115) (116).....	1	1	1
Theory of Music 117, (118) (119).....	1	1	1
*Piano, Violin, Voice, or Organ.....	1	1	1
Physical Education 111, (112) (113).....	1	1	1
Psychology 140, 245 (or 342), 230.....	4	4	4

*Second Year*

English 542, (543) (544).....	4	4	4
Foreign Language .....	3-5	3-5	3-5
Theory of Music 211, (212) (213).....	1	1	1
*Piano, Violin, Voice, or Organ.....	1	1	1
Physical Education 211, (212) (213).....	1	1	1

## DEPARTMENT STATEMENTS

## ANCIENT LANGUAGES

PROFESSOR STRAUSS, ASSOCIATE PROFESSOR HANCOCK

*Requirements for a Major in Latin or ancient languages:* forty-five credit hours. Students who expect to teach Latin in secondary schools should complete course 147 (148) (149) and at least nine hours of more advanced work.

## LATIN

111 (112) LATIN AND GREEK WORD-ROOTS IN ENGLISH.—Requires no knowledge of the Greek language and but one year of Latin. Gives a working knowledge of the common roots used in the formation of English words, both technical and general. Especially for students of science who do not continue Latin. Winter and spring. HANCOCK.

114 (115) (116). ELEMENTARY LATIN COMPOSITION.—Required of all students taking 131 and of those taking 134 who have had no equivalent course. One hour a week. HANCOCK.

131 (132) (133). CICERO'S SPEECHES AND LETTERS.—Six speeches, and selections from the letters; a review of forms and

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\*In instrumental and vocal music no definite number of hours can be stated; the applicant must show the attainment of sufficient knowledge, technique, and ability before a diploma will be granted. In general, this will require from four to six years of study. In addition to the study of the major instrument the candidate will be required to spend at least one year in the study of some other instrument, or of voice, subject to the approval of the head of the department.



syntax; introduction to the use of good English in translation. For students who offer two units of Latin for entrance. See course 114 (115) (116). HANCOCK.

134 (135) (136). VERGIL'S AENEID.—Due attention is given to forms, syntax, and prosody, but the chief aim is an appreciation of the poem as literature. For students who offer three units of Latin for entrance. See course 114 (115) (116). STRAUSS.

141 (142) (143). ELEMENTARY LATIN FOR BEGINNERS.—Grammar and exercises. Caesar, four books. To meet the needs of students in the sciences, and to lay a foundation for those students who intend to continue Latin or the modern languages. Will admit to Latin 131. STRAUSS.

147. CICERO'S ESSAYS.—The *De Amicitia*, with a thorough review of forms and syntax at the beginning. Fall and winter.

148. LIVY.—Selections from Livy, Books XXI-XXII. Winter and spring.

149. LATIN COMEDY.—The *Phormio* of Terence. Spring.

These courses, in any order, are open to those who have had four units of Latin, or 134-136. STRAUSS, HANCOCK.

511 (512) (513). ADVANCED LATIN COMPOSITION.—Translation of English narrative and study of Latin idioms. Essential to students who are preparing to teach Latin. Prerequisite: Latin 147-149. STRAUSS.

514 (515) (516). LATE LATIN.—To show close connection between Latin and the Romance languages. Open to students who present two entrance units of Latin and who have not less than the equivalent of a full year in college of one Romance language. STRAUSS.

531. CICERO.—Selections from the Letters. Fall.

532. JUVENAL AND MARTIAL.—Juvenal's Satires; Martial's Epigrams. Winter.

533. PLINY.—Selections from the letters. Spring.

The incidental object of courses 531-533 is to acquaint the student with Roman public and private life. Prerequisite: Latin 147-149. STRAUSS.

\*534 (535) (536). ROMAN POETRY.—Reading of selections from Roman poets. An attempt made to secure a good general view of the whole field of Roman poetry. Prerequisite: Latin 531-533. HANCOCK.

537. HISTORY OF ROMAN LITERATURE.—Mackail's *Latin Literature*, supplemented by lectures and assigned reading in English translations of the more important authors. Winter.

538. GREEK AND ROMAN MYTHOLOGY; ITS USE IN ENGLISH LITERATURE.—A systematic study of the classical myths that un-

derlie all literature. Each student will trace a particular myth through English literature. Those having a knowledge of Latin will investigate Latin sources. Fall.

539. ROMAN PRIVATE LIFE.—Johnston's *Private Life of the Romans*. Lectures illustrated by stereopticon and supplemented by collateral reading and reports. Spring. Courses 537, 538, 539 presuppose no knowledge of Latin. STRAUSS.

#### GREEK

131 (132). ELEMENTARY GREEK.—Assuming a fair knowledge of Latin Grammar, the essentials of Greek form and syntax are covered rapidly, with much illustrative reading and comparatively little drill. For students who offer no Greek for entrance. Fall and winter. HANCOCK.

143. XENOPHON.—Selections from *Anabasis*, *Cyropedia*, and *Memorabilia*; practical review of syntax, some prose composition and sight reading. Prerequisite. Greek 131 (132). Spring. HANCOCK.

531. GREEK LIFE IN GREEK ART—A history of Greek art and architecture with emphasis upon its relations to Greek life, character and history. Illustrated lectures, outside readings, frequent quizzes. Not open to freshmen. Fall. HANCOCK.

543 (544). GREEK LITERATURE IN TRANSLATION.—To give students of any literature a knowledge of the form and content of the literature that has influenced most widely other literatures. In the first quarter epic and lyric poetry will be studied; in the second, prose and drama. Lectures, class reading, collateral reading, and frequent tests. Winter and spring. HANCOCK.

#### BOTANY

PROFESSOR BUCHHOLZ, ASSISTANT PROFESSOR DELLINGER

*Requirements for a major in Botany:* forty-five credit hours, which should include 341, 522 or 523, 534, 545, 556 or 546, and Plant Pathology 4 hours or Bacteriology 4 hours. Students majoring in Botany are advised to elect some courses in the related sciences. Certain advanced courses are given only in alternate years. Juniors and seniors who major in Botany are expected to attend the seminar.

141. ELEMENTARY BOTANY.—The fundamental structures and physiological processes of higher plants, with special reference to the nature of economic plants. Bacteria, and a few other types of microscopic plants. Lectures and recitations three hours, laboratory three hours. Fall. Fee, \$2.50. BUCHHOLZ, DELLINGER.

142 (143). ELEMENTARY BOTANY.—The life histories of the great groups of plants in the order of their evolution, affording a brief general survey of the plant kingdom. Special emphasis

placed on the disease producing fungi. In the spring the work merges into a systematic course in the classification of seed plants. Field trips taken on Saturdays, or during afternoons as part of the laboratory work, for a study of the local flora. Lectures and recitations three hours, laboratory three hours. Winter and spring. Fee, \$2.50. BUCHHOLZ, DELLINGER.

149. NATURE STUDY, PLANT AND ANIMAL LIFE.—The biological subject matter of nature study courses, with emphasis on the material suitable for use in the public schools. Life histories and habits of insects, birds, and other animals, habitat studies of common plants, gross anatomy of flower parts, identification of trees, and interdependence of plant and animal life. The principal object is to awaken an interest in and appreciation of surroundings. Lectures two hours, field and laboratory four hours, with field trips on Saturday. Spring. Fee, \$2.50. BUCHHOLZ.

331 (332) or 321 (322) (323). PLANT MICROTECHNIQUE.—Practice in the various methods of preparing plant material for microscopic examination. Laboratory eight hours (course 331-2), or six hours (course 321-3). Prerequisite: 141-143. Fee, \$4.00. BUCHHOLZ.

339. FOREST TREES OF ARKANSAS.—A course in the identification and distribution of the native forest trees and shrubs found in Arkansas and the Southwest. Lectures one hour, field trips three hours a week, and laboratory. Fall or spring. BUCHHOLZ.

\*341. GENETICS.—The facts and theories of inheritance. The hypotheses concerned with the problems of evolution. Lectures and recitations three hours, laboratory two hours. Prerequisites: 141-143, or Zoology 144-145. Fall and winter. Fee, \$2.50. DELLINGER.

347. PLANT PHYSIOLOGY.—The student performs a series of experiments designed to make clear to him in both qualitative and quantitative sense the salient functions. Laboratory eight hours. Prerequisite: Botany 141-143, and Chemistry 141-143. (Not given in 1922-23.) Fee, \$2.50. BUCHHOLZ.

\*351. GENERAL BACTERIOLOGY.—A general introductory course, Spring. Prerequisite: Botany 141 and 142, and Chemistry 141-3 or 144-5. Given by Department of Bacteriology.

342. HOUSEHOLD BACTERIOLOGY.—The study of bacteria, yeasts, and molds, followed by a study of sanitation and the relation of these micro-organisms to the home. Prerequisite: 141 or Zoology 241 and Chemistry. Given by Department of Bacteriology.

\*522. MORPHOLOGY OF ALGAE.—A more detailed treatment of algae with respect to their morphology and evolution, with emphasis on the fresh water algae. One lecture and three hours laboratory. Prerequisite: 141-143. Fall. Fee, \$1.00. DELLINGER.

\*523. MORPHOLOGY OF BRYOPHYTES.—The liverworts and mosses are studied in greater detail with reference to the important facts of their general morphology and evolution. Lectures one hour and laboratory three hours. Winter. Fee, \$1.00. (Not given in 1922-23.) BUCHHOLZ.

\*534. MORPHOLOGY OF PTERIDOPHYTES.—A morphological study of ferns and fern allies with reference to their life histories and the evolution of their vascular structures. Should precede Botany 545. Lectures two hours and laboratory three hours. Prerequisite: 141-143. Fall. Fee, \$1.50. BUCHHOLZ.

\*545 (or 555). MORPHOLOGY OF SPERMATOPHYTES.—The details of the morphology of seed plants in relation to their evolutionary history. Special attention is given to the study of Gymnosperms, with additional laboratory assignments for those taking the course for an extra hour's credit. Prerequisite: 534. Winter. BUCHHOLZ.

\*442. MORPHOLOGY OF FUNGI.—Similar to the above, covering fungi. Given by the Department of Plant Pathology.

\*443. POISONOUS AND EDIBLE MUSHROOMS.—Identification and classification of the fleshy fungi with emphasis on the poisonous and edible forms. Given by the Department of Plant Pathology.

556 (or 546). SYSTEMATIC BOTANY.—The identification and classification of wild and cultivated plants in the vicinity of Fayetteville. The field work will include ecological studies (the Ozark region is especially fine). Correlation of the groups from an evolutionary standpoint. Lecture one hour, laboratory eight to ten hours. Field trips afternoons or Saturdays. Prerequisite: 141-142. Spring. Fee, \$2.50. BUCHHOLZ.

\*653. CYTOLOGY.—The cell and the behavior of its component parts during division. The theories attempting to correlate the facts of Mendelian inheritance with cell conditions. Lectures and recitations two hours, laboratory six hours. Prerequisites: 545 and 341. Spring. Fee, \$2.50. DELLINGER.

\*610. BOTANICAL SEMINAR.—Reviews and discussions of articles in current botanical journals, by students, faculty members, or specialists of Experiment Station staff. BUCHHOLZ.

## CHEMISTRY

PROFESSOR HALE, ASSOCIATE PROFESSOR WERTHEIM,  
ASSISTANT PROFESSOR HUMPHREYS, DR. PORTER

The courses in Chemistry are planned to meet the needs of students who (1) desire knowledge of the science for its cultural value; (2) need it as a foundation for work in other sciences; (3) are majoring in chemistry or chemical engineering.



*Requirements for a Major in Chemistry:* Forty-five term hours, which should include courses 141 (142) (143), 251, 254 (255), 354 (355).

In conjunction with the College of Engineering, there is also offered a course leading to the degree of Bachelor of Chemical Engineering. (See College of Engineering)

141 (142) (143). **GENERAL CHEMISTRY.**—An elementary course with a two-fold object: First, to give the student a thorough general knowledge of the principles of chemistry; second, to make chemistry a subject of interest and value, touching so closely everyday life. Lectures, demonstrations, and recitations three hours, laboratory three hours a week. No prerequisite. Fee, \$4.00 each term. **HALE, HUMPHREYS, AND ASSISTANTS.**

144 (145). **GENERAL CHEMISTRY.**—The same as the above course, but adapted to the needs of students offering an admission unit in chemistry. Fall and winter. Fee, \$4.00 each term. **HUMPHREYS AND ASSISTANTS.**

257 (258) (259). **GENERAL CHEMISTRY (ENGINEERS).**—Prerequisite: Physics 149. Fee, \$5.00 for each term. **HALE, HUMPHREYS, AND ASSISTANTS.**

242. **ELEMENTARY ORGANIC CHEMISTRY.**—Designed especially for students in Agriculture and Home Economics. Lectures and recitations three hours, laboratory three hours a week. Prerequisite: 141-143. Spring. Fee, \$4.00. **WERTHEIM.**

251, 241. **QUALITATIVE ANALYSIS.**—A practical course with lectures and recitations dealing with the theory involved. Lectures and recitations two hours, laboratory nine or six hours a week. Prerequisite: 143. Fall and spring. Fee, \$6.00 and \$5.00 respectively. **PORTER.**

232. **ADVANCED QUALITATIVE ANALYSIS.**—Continuation of 251, with lecture and recitation one hour, laboratory six hours a week. Prerequisite: 241. Fee, \$5.00. **PORTER.**

254, 244. **QUANTITATIVE ANALYSIS.**—The theory and practice of the subject, including the most important gravimetric and volumetric methods. Lectures and recitations two hours, laboratory nine or six hours a week. Prerequisite: 241. Winter. Fee, \$6.00 and \$5.00 respectively. **PORTER.**

255. **ADVANCED QUANTITATIVE ANALYSIS.**—Continuation of 254 with similar hours. Spring. Fee, \$6.00. **PORTER.**

354 (355). **ORGANIC CHEMISTRY.**—The fundamental principles of the subject, illustrated by laboratory work. Lectures and recitations three hours, laboratory six hours a week. Prerequisite: 241. Fall and winter. Fee, \$5.00 each term. **WERTHEIM.**

\*359. INDUSTRIAL CHEMISTRY.—The practical application of chemistry to industry, special attention being given to actual or possible manufacturing establishments in this state. One or more inspection trips are taken. Lectures and recitations five hours a week. Prerequisites: 254, 354. Spring. HALE.

\*434. HISTORY OF CHEMISTRY.—The development of chemistry, intended to furnish a helpful basis for the present day science. Lectures and recitations three hours a week. Prerequisites: 254, 354. Fall (Not given in 1922-23.) HALE.

\*435 (436). ADVANCED INORGANIC CHEMISTRY.—The underlying facts and principles are studied in some detail. Lectures and recitations three hours a week. Prerequisites: 254, 354. Winter and spring. (Not given in 1922-23.) HALE.

\*437 (438). ADVANCED ORGANIC CHEMISTRY.—A more thorough study of certain topics for advanced students. Lectures and recitations three hours a week. Prerequisites: 254, 355. Spring. WERTHEIM.

\*447. ORGANIC QUALITATIVE ANALYSIS.—Analysis and identification of simple organic compounds by the "group" or "class reaction" method. A paper on some general reaction will be presented by each student. Reading knowledge of German is desirable. Lectures two hours, laboratory six hours a week. Prerequisites: 241, 355. Fall. Fee, \$5.00. WERTHEIM.

\*451 (452). PHYSICAL CHEMISTRY.—The general principles of natural science with especial reference to the principles, theories and generalizations of chemistry. The method of attacking a problem, the apparatus used, and a study of certain fundamental principles are covered in the laboratory work. Lectures and recitations three hours, laboratory six hours a week. Prerequisites: 255, Physics. Fall and winter. Fee, \$5.00 each term. PORTER.

\*453. ELECTRO-CHEMISTRY.—The relation of chemical to electrical energy, transformations from one form of energy to the other, certain electro-physical phenomena and industrial applications. Lectures and recitations three hours, laboratory six hours a week. Prerequisite: 452. Spring. Fee, \$5.00. PORTER.

522, 523. INORGANIC PREPARATIONS.—Chiefly laboratory work with an insistence upon the principles and economic value of the process. Six hours a week. Prerequisite: 244. Winter. Fee, \$5.00 each term. HUMPHRIES.

524, 525. ORGANIC PREPARATIONS.—Similar to 522, 523. Prerequisites: 241, 355. Spring. Fee, \$5.00 each term. WERTHEIM.

531. AMERICAN CHEMISTRY.—The fundamental importance of chemistry in our modern life and the real contribution the United States has made and is making to chemistry. A non-technical course, intended to be of cultural value. Lectures and recitations three hours a week. Spring. HALE.

533. **METALLURGY.**—Lectures and recitations treating of principles and practice three hours a week. Prerequisite: 241. Winter. (Not given in 1922-23.) PORTER.

537. **SPECIAL PHYSICAL CHEMISTRY.**—A shorter course for pre-medical students. Lectures and recitations three hours a week. Prerequisites: 244, 354. Spring. (Not given in 1922-23.) PORTER.

\*631-639. **SPECIAL METHODS IN QUANTITATIVE ANALYSIS.**—Sanitary Water Analysis, Petroleum Technology, Electro-Analysis, Ultimate Organic Analysis, Coal and Coke Analysis, Analysis of Road Materials, Analysis of Certain Rocks, etc. Chiefly laboratory work with conferences. The amount of credit to be arranged with the individual student before he registers for the course. Prerequisite: 244. Fee, \$6.00 each term. HALE, WERTHEIM, PORTER.

\*816, 817. **CHEMICAL SEMINAR.**—Members of the faculty, graduates, and advanced students meet weekly for the discussion of articles in the current chemical literature. Prerequisites: 244, 354. Winter. HALE.

\*831. **CHEMICAL RESEARCH.**—Problems in research for graduates or others considered capable of successfully attacking them. Credit will vary in accordance with the amount of work done. HALE.

## ECONOMICS AND SOCIOLOGY

ASSOCIATE PROFESSOR WATERMAN, ASSISTANT PROFESSOR SCOTT,  
MR. McCOWEN

This department offers instruction in economic principles in relation to individuals, particular branches of business, and the public welfare.

*Requirements for a Major in Economics:* Forty-five credit hours, including courses 540, 541 and 542. Students in the College of Education preparing to teach commercial subjects may complete a major in this department with courses 520 (521), 540 (541), 546 (547), 647, 730 (731), and fifteen hours of electives.

540 (541). **PRINCIPLES OF ECONOMICS.**—The fundamentals of economic science and a preliminary survey of economic relations as organized by private interests and public agencies. Prerequisite: None. Fall and winter. WATERMAN, SCOTT, McCOWEN.

520 (521). **BUSINESS ORGANIZATION AND MANAGEMENT.**—The principles underlying the development of modern manufacturing, mercantile, and financial establishments. Prerequisite: None. Fall and winter. McCOWEN.

522. CREDITS AND COLLECTIONS.—Mercantile credit, sources and analysis of credit information; credit insurance; the Bankruptcy Acts; collection agencies and collection departments. Prerequisite: None. Spring. McCOWEN.

545. TRANSPORTATION.—Transportation facilities as determinants of market situations; the economics of the good roads movement; the cost and service of inland waterways, steam and electric railways; ocean ports and carriers. Prerequisite: 540 (541). Spring. McCOWEN.

546 (547). COMMERCIAL LAW.—The laws that govern business transactions such as contracts, agency, negotiable instruments, bailments, insurance, sales, corporations, and the transfer of real property. Prerequisite: None. Fall and winter. WATERMAN.

\*549. ECONOMIC HISTORY OF THE UNITED STATES.—The events of our history in the light of economic principles; the trend of past industrial development and the source of present conflicts. Prerequisite: 540 (541). Fall. WATERMAN.

640. PRINCIPLES OF SOCIOLOGY.—The antiquity of man; folkways and primitive customs; social control of individual conduct; the various theories of social progress; the origin of modern social institutions; classification of social activities. Prerequisite: None. Fall. WATERMAN.

641. PROBLEMS IN SOCIAL BETTERMENT.—An examination into the nature, causes, and treatment of selected social problems, discussed in the light of modern sociological thought. Prerequisite: 640. Winter. WATERMAN.

\*645. BANKING PRINCIPLES.—A study of the organization and operation of national banks and the Federal Reserve system; the state banking systems; trust companies and private banks; commercial and investment banking. Prerequisite: 540 (541). Spring. WATERMAN.

646. FOREIGN COMMERCE.—Historic trade routes and centers; tariff and trade policies; marine insurance; the merchant marine and ship subsidies; the principles and operation of foreign exchange. Prerequisite: 540 (541). Spring. McCOWEN.

\*647. CORPORATION FINANCE.—Organization of the corporation; the problem of proper capitalization; the financial plan, sale of securities, management of corporate income, receivership, and reorganization. Prerequisite: 540 (541). Spring. WATERMAN.

648. SELLING AND MARKETING.—Advertising plans campaigns, and media; analysis of market and product; distribution of advertising costs; the organization, operation, and function of marketing agencies. Prerequisite: 540 (541). Spring. McCOWEN.

639. INDUSTRIAL MANAGEMENT.—Location, arrangement, and equipment of industrial plants; methods of departmental organ-



ization; control of branches and agencies; securing and interpreting industrial data. Prerequisite: None. Fall. McCOWEN.

730 (731). **ELEMENTARY ACCOUNTING.**—The theory and practice of double-entry bookkeeping illustrating the uses of the fundamental books, the interpretation and classification of accounts, preparation and analysis of statements. Prerequisite: None. Fall and winter. McCOWEN.

732. **ADVANCED ACCOUNTING.**—Partnership and corporation accounts; treatment of good will, depreciation, profits, reserves; function of the financial statement. Prerequisite: 730 (731). Spring. McCOWEN.

\*741. **GOVERNMENT REGULATION OF INDUSTRY.**—The problems created by the growth of large business; pools, trusts, holding companies; the Sherman and Clayton Acts, and subsequent state and federal legislation; the Federal Trade Commission and the enlargement of the field of governmental control. Prerequisite: 540-541. Spring. SCOTT.

\*742. **PUBLIC FINANCE.**—The theories and methods of raising and disbursing public revenue as applying to Federal, State, and local fiscal systems. Prerequisite: 540-541. Spring. SCOTT.

\*744. **SOCIALISM.**—The historical background of socialism; socialism, as a criticism of classical political economy and existing institutions, as a theory of social progress, and as a program of social reform. Prerequisite: 540 (541). Spring. WATERMAN.

\*745. **INDUSTRIAL RELATIONS.**—Origin and development of labor unions and employers' associations; types, purposes, and policies of unions; increased participation of labor in the management of industry. Prerequisite: 540 (541). Fall. SCOTT.

\*746. **THE STATE IN RELATION TO LABOR.**—Collective contract; legality of strikes and boycotts; compulsory arbitration; the minimum wage; social insurance; child labor legislation; industrial courts. Prerequisite: 540 (541). Winter. SCOTT.

\*747. **LABOR ADMINISTRATION.**—Labor turnover; absenteeism; administration of labor supply; selection of workers; education and training of workers; welfare work; shop committees and industrial councils; personnel department. Prerequisite: 540 (541). Spring. SCOTT.

331 (332). **AGRICULTURAL ECONOMICS.**—The problem of distribution as touching rents and value of farm lands, farm labor and wages, rates of interest and profits in agriculture. The organization and methods of marketing farm products, the problems of price quotations, transportation, futures, inspection and grading, co-operative buying and selling. Prerequisite: None. Fall and winter. SCOTT.

\*430 (431). HISTORY OF ECONOMIC THOUGHT.—A study of economic theory from the time of the Mercantilists to the beginning of the twentieth century. Prerequisite: 540 (541). Fall and winter. SCOTT.

433. BUSINESS LAW.—For senior students in Engineering only. A condensation of course 546-547. Prerequisite: None. Winter. WATERMAN.

### ENGLISH

PROFESSOR JONES, PROFESSOR JORDAN, ASSOCIATE PROFESSOR HASTINGS, ASSOCIATE PROFESSOR SHIEHAN, ASSISTANT PROFESSOR HOLCOMBE, MISS DAVIS, MISS JACKSON,  
MR. BERARD, MR. DAKIN

The aim of the courses in the department of English is (1) to train students to write English clearly and correctly, and (2) to teach them to understand and to appreciate the best in literature. Every course in composition, therefore, is accompanied by a considerable amount of required readings, and every course in literature requires a certain amount of written criticism.

*Requirements for a Major in English:* Fifty-four term hours, including courses 131 (132) (133), 542 (543) [or 144 (145) (146)], 531 (532) or 547 or Public Speaking 554 (555) (556) or Journalism 631 (632) (633) and two from the following three: 641 (642), 643, 644 (645). Students who expect to teach English in the secondary schools should complete at least forty-five term hours in English with some credits in literature and some in language.

Students taking up journalism should consult the head of the department at the beginning of their sophomore year.

### ENGLISH

131 (132) (133). RHETORIC AND COMPOSITION.—Recitations, themes, conferences, and required reading, three hours a week. Some practice in argumentation, description, and narration, but the chief drill is in expository writing. *Required of all Freshmen except those who are admitted to English 144-6.* JONES, JORDAN, HASTINGS, HOLCOMBE, DAVIS, BERARD, AND DAKIN.

144 (145) (146). COMPOSITION AND LITERATURE.—Intended for those students who have had four years of English in the high school and who have shown marked proficiency in the subject. No student is admitted without the consent of the instructor. This course may be substituted for English 542-543 as a prerequisite to advanced courses. JONES.

231 (232) (233). ENGLISH COMPOSITION.—Required of all students in the College of Arts and Sciences who do not make a grade higher than "D" in Freshman English. Consists largely of practice in writing and intensive drill in correct usage of spoken and written English. JONES.

331 (332) (333). **ENGLISH COMPOSITION.**—Technical writing, with some study of scientific and technical articles of various kinds. Open only to students in the Colleges of Agriculture and Engineering, who have credit for English 131-3, or its equivalent. Lectures, recitations, and themes throughout the year. Prerequisite: English 131-3. **HASTINGS.**

531 (532). **ADVANCED COMPOSITION.**—To teach the principles of exposition and to develop the ability to write clear and vigorous prose. Themes, assigned readings, and conferences. Prerequisite: English 131-133. Fall and winter. **HOLCOMBE.**

542 (543). **ENGLISH LITERATURE IN OUTLINE.**—The life and literature of the English people from Anglo-Saxon times to the close of the nineteenth century. Lectures, study of the works of representative authors, reports, and critical essays. Prerequisite: English 131-133. Fall and winter. **JONES, JORDAN, HOLCOMBE, HASTINGS, AND BERARD.**

544. **AMERICAN LITERATURE.**—General course. Lectures and recitations. Prerequisite: English 542-543. Spring. **HOLCOMBE AND HASTINGS.**

545. **ENGLISH PROSE FICTION.**—Various types of prose fiction from the romance of the sixteenth century to George Eliot. Lectures, readings, and critical reports. Prerequisite: English 542-543. Fall. **HASTINGS.**

546. **CONTEMPORARY LITERATURE.**—Recent and contemporary English and American poets and novelists. Prerequisite: English 542-543. Winter. **HASTINGS.**

547. **THE SHORT STORY.**—Consists partly in the reading and criticism of short stories, and partly in story writing. Lectures and recitations. Prerequisite: English 542-543. Spring. **JORDAN.**

\*548. **Eighteenth Century Literature.**—Primarily a study of the prose and poetry of the Classical period, with an attempt to outline the principles of Classicism. Lectures and recitations. Prerequisite: English 542-543. Spring. **JORDAN.**

549. **BRITISH ROMANTIC POETS OF THE NINETEENTH CENTURY.**—Deals principally with the poetry of Wordsworth, Coleridge, Scott, Byron, Shelley, and Keats. Lectures and recitations. Prerequisite: English 542-543. Fall. **JORDAN.**

\*641 (642). **CHAUCER.**—Chaucer's language and literary style. Consent of the instructor necessary. Lectures and recitations. Fall and winter. **HOLCOMBE.**

\*643. **Anglo-Saxon.**—To give a knowledge of the earliest form of English. Constant comparison of modern English with Anglo-Saxon. Lectures and recitations. Prerequisite: English 542-543. Spring. **JONES.**

\*644 (645). SHAKESPEARE.—A critical study of a few plays. Lectures and recitations. Prerequisite: English 542-543. Fall and winter. JONES.

\*646. THE DRAMA IN ENGLAND FROM 1580 TO 1642.—The Elizabethan dramatists, exclusive of Shakespeare. Prerequisite: English 542-543. Spring. JORDAN.

647. TENNYSON AND BROWNING.—Emphasis is placed upon the art and thought of Tennyson and Browning in their relation to modern life. Lectures and recitations. Prerequisite: English 542-543. Winter. JORDAN.

648. LYRIC POETRY.—The greatest examples of lyric poetry, not only in English but in other literatures. Lectures and recitations. Prerequisite: English 542-543. Spring. HASTINGS.

649. THE CONTEMPORARY DRAMA.—Recent plays in Europe and America. Lectures, reading, and dramatic criticism. Prerequisite: English 542-543. Spring. HOLCOMBE.

721 (722) (723). LITERATURE OF THE BIBLE.—A literary study of the Bible. The first two terms are devoted to the Old Testament and the third term to the New Testament. Lectures, recitations, and parallel readings. Three hours a week, with six term-hours' credit for the year. Prerequisite: English 542-543. Spring. JACKSON.

741. MILTON.—An intensive study of the poetry of Milton, with some consideration of his prose. Lectures and recitations. Prerequisite: English 542-543. Spring. HOLCOMBE.

\*742. ESSAYS OF THE NINETEENTH CENTURY.—Attention is given chiefly to Lamb, De Quincey, Macaulay, Carlyle, Emerson, Newman, and Arnold. Lectures, readings, and reports. Prerequisite: English 542-543. Spring. JONES.

\*743. LITERARY CRITICISM.—The more generally accepted principles of literary criticism and their application to the chief types of literature. Consent of instructor necessary. Lectures and recitations. Spring. JONES.

\*744. COMPARATIVE LITERATURE.—General survey of some of the more important works of Continental writers and of literary tendencies since the Renaissance, with stress upon such as have been influential in England. Consent of instructor necessary. Winter. JONES.

#### PUBLIC SPEAKING

551. ARGUMENTATION.—The course aims to teach the principles of argumentation and afford practice in the application of these principles in frequent discussions and debates. Lectures, recitations, reading, and class exercises. Prerequisite: English 131-133. Fall. JORDAN.

534 (535) (536). **PUBLIC SPEAKING.**—Lecture and text-book work based upon the principles of effective public speaking, and training in both formal and informal address. Lectures, recitations, class exercises. Prerequisite: English 131-133. JORDAN.

542 **INTERCOLLEGIATE DEBATE.**—The question for intercollegiate debate is studied and briefed, and frequent practice debates are held. Open only to students who have been awarded places on the intercollegiate debating squad. Winter. JORDAN.

### JOURNALISM

537 (538) (539). **NEWSPAPER WRITING.**—For students who expect to make journalism their profession, and for those who desire some training in newspaper methods. News-gathering; press associations; news values; writing of news. Made practical by carrying on class work in connection with daily newspaper and student publications. Prerequisite: English 131-133. Fee, \$1.00 each term. SHEEHAN.

521 (522) (523). **NEWSPAPER EDITING.**—The editing of copy, correcting proof, writing headlines, making up, rewriting, and other details of editing; the organization and method of local, state, and national news gathering. Prerequisite: Journalism 537-539. Alternates with Journalism 631 (632) (633.) (Not given in 1921-2.) Fee, \$1.00 each term. SHEEHAN.

631 (632) (633). **SPECIAL FEATURE ARTICLES AND EDITORIALS.**—The special feature article in newspaper and magazine is studied and analyzed as a form, and practice in writing is given with a view to publication. The same is done with the editorial. Prerequisite: Journalism 537-9. Alternates with Journalism 521-3. (Not given in 1922-3.) Fee, \$1.00 each term. SHEEHAN.

### FINE ARTS

MR. TOFFEY, MISS GALBRAITH, MISS RANKIN, MISS BEDELL, MISS GILL, MRS. BATEMAN, MR. HASSELL, MR. MITCHELL.

#### MR. HANSARD

The department of Fine Arts offers courses in the theory of music, piano, violin, voice, art, expression, and history of music. A statement of the requirements for admission will be found on previous pages for both regular and special students.

Courses in music leading to a diploma or a degree are outlined on previous pages.

Six term hours of credit toward the Bachelor of Arts degree will be allowed for work in music, of which not more than three hours shall be allowed for courses in piano, violin, and voice. No credit is allowed unless the student takes at least two lessons a week for a full year.

Credit for pipe organ will be allowed toward the A. B. degree and in the College of Education for the first year's work.



## SPECIAL FEES IN THE DEPARTMENT OF FINE ARTS

Piano, or Organ, with Director, a term.....	\$33.50
Piano, with Assistant, a term.....	26.50
Voice, Violin, a term.....	26.50
Study of Appreciation, a term.....	4.00
Harmony, in class, a term.....	6.00
History of Music, in class, a term.....	6.00
Counterpoint, a term.....	6.00
Piano Practice, one hour daily, a term.....	3.50
Diploma fee, for completion of the special Diploma course in music.....	5.00
Choral Music.....	4.00

## THEORY OF MUSIC

111 (112) (113).	HARMONY.—One hour a week.	MITCHELL.
211 (212) (213).	ADVANCED HARMONY.—One hour a week.	MITCHELL.
114 (115) (116).	HISTORY OF MUSIC.—One hour a week	HASSELL.
117 (118) (119).	APPRECIATION I.—One hour a week.	TOVEY.
311 (312) (313).	COUNTERPOINT.—One hour a week.	TOVEY.
217 (218) (219).	APPRECIATION II.—One hour a week.	TOVEY.
317 (318) (319).	APPRECIATION III.—One hour a week.	TOVEY.
324 (325) (326).	FORM AND ANALYSIS.	TOVEY.
424 (425) (426).	ENSEMBLE MUSIC.	HANSARD.
427 (428) (429).	CANON AND FUGUE.	TOVEY.
524 (525) (526).	SELECTION AND INTERPRETATION.	TOVEY.
(528) (529).	CHORAL MUSIC.	TOVEY.

## PIANO

The aim of the courses in piano music is to develop technical control and the power of musical conception as adapted to artistic ends.

PREPARATORY GRADE. TOVEY, HASSELL, AND MITCHELL.

INTERMEDIATE GRADE. TOVEY, HASSELL AND MITCHELL.

ADVANCED GRADE. TOVEY, HASSELL AND MITCHELL.

ACCOMPANIMENT. TOVEY.

THE TEACHING OF MUSIC.—A course designed for students who expect to teach music. TOVEY.

## VIOLIN

The instruction in violin music is designed to develop correct technique. In addition to the studies, the student is given compositions of standard composers. HANSARD.

## VOICE

The purpose of instruction in this branch of music is the correct production of tone and the building and development of the voice according to the old Italian method. Special stress is laid on breath control, accuracy of tone, distinct articulation, the study of intervals, scale building, sight reading, and phrasing. **BATEMAN.**

**PUBLIC SCHOOL MUSIC, AND SUPERVISORS' COURSE. BATEMAN.**

## ART

This department seeks to lay the foundation for a thorough art education. Its purpose is to awaken an appreciation of beauty in the student and to cultivate self expression in form and color. The advantages offered enable both elementary and advanced students to pursue the study of art while taking a college course. The department offers courses in fine and applied arts, normal art, and history of art.

117, 118, 119. **SKETCH CLASS.**—Drawing from pose. Two hours a week. **GALBRAITH.**

121, 122, 123. **ELEMENTARY FREEHAND DRAWING.**—Drawing from still life, casts, flowers; perspective. Four hours a week. **GALBRAITH.**

124 (125) (126).—**ELEMENTARY DESIGN**—Principles of design in line, value, and color. Three hours lecture, two hours laboratory a week. **GILL.**

127 (128) (129). **ELEMENTARY NORMAL ART.**—The teaching of art in the grades. Planning courses of study. Observation. Practice teaching. Four hours a week. **BEDELL.**

225 (226) (227). **APPLIED DESIGN.**—Design as applied to various materials. Four hours a week. Prerequisite: 124-6. **BEDELL.**

233 (234) (235). **HISTORY OF ART.**—A brief study of the history of painting, architecture, and sculpture. Lectures illustrated by prints and lantern slides, together with text and reference reading. Three hours a week. **GALBRAITH.**

321, 322, 323. **PICTORIAL COMPOSITION.**—Expression of mood by line and color. Four hours a week. Prerequisite: 521-3. **GALBRAITH.**

324 (325) (326). **ADVANCED APPLIED DESIGN.**—A continuation of 225-7. Four hours a week. **BEDELL.**

521, 522, 523. **FREEHAND DRAWING.**—Drawing and painting from still life and costume model. Four hours a week. Prerequisite: 121-3. **GALBRAITH.**

627 (628) (629). **ADVANCED NORMAL ART.**—The teaching of art in high schools. Four hours a week. Prerequisite: 127-9. **BEDELL.**

**HOUSE DECORATION.**—See **HOME ECONOMICS 441-3. GILL.**

**COSTUME DESIGN.**—See **HOME ECONOMICS 221-3. GILL.**

### EXPRESSION

The aim of the courses in this department is (1) to secure naturalness and freedom from selfconsciousness in reading and speaking; and (2) to train the student to arrive at a correct understanding of literature and the appreciation of its spirit and essence through vocal interpretation. The student is made to realize that the reader's concept is mental. The voice and body are trained to willing obedience to this mentality. Close attention is given to voice culture and correct articulation.

131 (132) (133). **VOCAL EXPRESSION.**—The fundamental principles in the correct use of the body and voice in speaking and reading, accuracy of observation, and care in analysis. The student is trained to read aloud simply, easily and naturally, from the Old and New Testament, Emerson, Longfellow, and Shakespeare. Story-telling, speech-making, and dramatic interpretation. **RANKIN.**

221 **THE TEACHING OF READING.**—For prospective public school teachers, aiming to give a definite, practical method of instruction which shall apply to each grade. Prerequisite: 131-133. Fall. **RANKIN.**

521 (522). **VOCAL INTERPRETATION.**—An advanced course in the interpretation of literature. Special attention given to the study of Tennyson, Browning, the dramatic monologue, various forms of literature, and literary analysis. Prerequisite: 131-133. Fall and Winter. **RANKIN.**

523 (524) (525). **VOCAL EXPRESSION AS ART.**—Impersonation, gesture, dialect, reading, recitation, preparation of programs, and "cutting" and adapting selections for the platform. Students required to prepare selections and present them before the class for criticism. One or two hours a week. Prerequisite: 131-133. **RANKIN.**

531 (532) (533). **DRAMATIC INTERPRETATION OF SHAKESPEARE'S PLAYS.**—A careful analysis and reading of three or four plays. At the end of the year one of the plays will be given in costume by the members of the class. Students are advised to take English 644 (645). Two terms required. Prerequisite: 131-133. **RANKIN.**

534 (535) (536). **THE ART OF PLAY READING.**—Plays are read aloud or put into rehearsal in order that students may vitalize the character and perceive the fundamental thing—the reaction

of one thought and emotion upon another. Frequent readings by the instructor from masterpieces of the drama. The class is affiliated with the Drama League of America. Open only to advanced students. Two terms required. Prerequisite: 131-133, or the equivalent. RANKIN.

## GEOLOGY

PROFESSOR CADY AND ASSISTANT PROFESSOR THOMAS

*Requirements for a Major in Geology:* forty-five term hours, not including 146; in addition, English 531, 532, or its equivalent; also twelve term hours in each of four subjects, other than Geology, included in Group 2, and either an additional six term hours in any two of the subjects except Geology included in Group 2 or an additional twelve term-hours in any one of these subjects other than Geology. Students expecting to teach General Science are advised to take 144-146 or 147-149, and 145.

144. PRINCIPLES OF HUMAN GEOGRAPHY.—A study of the physical background of geography and the relation of physical environment to man's activities. Juniors and seniors registering for this course must complete the equivalent of one hour of extra work. No prerequisite. Three recitations and three hours of laboratory. Fall and winter. Fee, \$1.00. CADY.

333. PRINCIPLES OF HUMAN GEOGRAPHY.—Same as 144, and meeting with 144. Open only to Juniors and Seniors. No prerequisite. Three recitations and three hours of laboratory. Fall and winter. Fee, \$1.00. CADY.

145. PHYSIOGRAPHY AND METEOROLOGY.—Land forms, weather, and climate. Three recitations and two hours of laboratory. No prerequisite. Winter and spring. Fee, \$1.00. THOMAS.

146. ELEMENTARY GEOLOGY.—A brief course mainly in structural and historic geology. Three recitations and two hours of laboratory. Prerequisite: 145. Spring. Fee, \$1.00. THOMAS.

147 (148) (149). GENERAL GEOLOGY.—The beginning course for students expecting to major in Geology. The Geology requirement for the degree of Bachelor of Science. This course may be substituted for the Geology requirement in the course of Civil Engineering (Geology 340), or for the Geology requirement in the College of Agriculture (Geology 230). Three recitations and three hours of laboratory. Prerequisite: one year accredited high school chemistry, or Chemistry 143, or Geology 145 and 146. Fee, \$1.50 each term. THOMAS AND CADY.

230. AGRICULTURAL GEOLOGY.—A brief course in rock minerals, rocks, rock weathering and soil formation, and rock structure, with a brief outline of geologic history. Primarily for students in the College of Agriculture, to meet the Geology requirement for graduation. Not open to students who have had

148 or 149 or are taking 147. Two recitations and three hours of laboratory. Prerequisite: Chemistry 143. Fall. Fee, \$1.50. CADY AND THOMAS.

340. ENGINEERING GEOLOGY.—A brief course in rock minerals, rocks, rock structure, the origin of land forms, the outline of geologic history, and the economic geology of building stones, road material, fuels, etc. Primarily for junior and senior students in Civil Engineering. Not open to students who have had 148 or 149 or are taking 147. Three recitations and three hours of laboratory. Prerequisite: Chemistry 143. Fall. Fee, \$1.00. CADY.

246. PHYSIOGRAPHY OF THE UNITED STATES.—The typical land forms in the United States and their origin. Regional geology and physiography. Recommended to students in history and economics. Three recitations and three hours laboratory. Prerequisites: 146 or 149 or 230 or 340. Winter. Fee, \$1.00. CADY.

241. MINERALS AND THEIR CRYSTAL FORMS.—Elementary crystallography, the common minerals or ores, and rocks. About 75 minerals will be studied. Two recitations and six hours of laboratory. Prerequisite: 149. Fall. Fee, \$2.00. THOMAS.

234. BLOWPIPE ANALYSIS.—One hour lecture, six hours laboratory. Prerequisites: 230, 340 or 149, or Chemistry 241 or 251. Winter. Fee, \$5.00. THOMAS.

245. ELEMENTARY PETROLOGY.—Study and identification of the common rocks. Two recitations and six hours of laboratory. Prerequisite: 241. Spring. Fee, \$2.00. THOMAS.

243. PRINCIPLES OF HISTORICAL GEOLOGY.—The biologic and physical basis of geologic history. Three recitations and three hours of laboratory. Prerequisite: 149 and Zoology 146. Fee, \$1.00. CADY.

247. GEOGRAPHY OF SOUTH AMERICA.—A regional study of the continent and an analysis of man's adaptations to the varying environments. Prerequisites: 145 or 147. Winter. THOMAS.

244. GEOLOGY OF PETROLEUM AND NATURAL GAS.—Three recitations and three hours of laboratory. Prerequisites: 146, 149, 230, or 340. CADY.

221, 222. FIELD GEOLOGY.—Field and laboratory practice in the construction of geologic maps and sections. Equivalent of six hours of laboratory work. Prerequisites: 149 or 330. Spring. Fee, \$2.00. CADY AND THOMAS.

## GERMAN

### PROFESSOR LUSSKY

The aim of the work in the department of German is primarily to acquaint the student with the German language and



literature as a means of culture. The practical value of a knowledge of German is, however, not neglected, as is indicated by the courses in scientific reading and composition. The excellent collection of German books in the University library offers unusual facility for advanced work in literature. Graduate courses will be offered as called for.

*Requirements for a Major in German:* forty-five term hours. Students preparing to teach German should consult the head of the department as early as possible.

141 (142) (143). **ELEMENTARY GERMAN.**—Grammar, composition, and the reading of easy prose and poetry. No prerequisite. **LUSSKY.**

231 (232) (233). **SCIENTIFIC GERMAN.**—Reading and discussion of works of a general, as well as more specialized, scientific nature. Prerequisite: 141-143. **LUSSKY.**

521 (522) (523). **INTRODUCTORY COMPOSITION.**—A thorough review of grammar and practice in the art of composition. Prerequisite: 141-143. (Alternates with course 621-623.) **LUSSKY.**

534 (535) (536). **MODERN PROSE AND POETRY.**—Reading and interpretation of eighteenth and nineteenth century authors. Prerequisite: 141-143. (Alternates with course 631-633.) **LUSSKY.**

631 (632) (633). **GOETHE AND SCHILLER.**—The lives and selected works of these authors; collateral reading and reports. Prerequisites: 231-233, or 521-523, or 534-536. (Alternates with course 534-536.) **LUSSKY.**

624 (625) (626). **LYRICS AND BALLADS.**—The lyric and ballad as literary forms. Prerequisites: 231-233, or 521-523, or 534-536. **LUSSKY.**

627 (628) (629). **COMPOSITION AND CONVERSATION.**—Conversation and original composition. Prerequisites: 231-233, or 521-523, or 534-536. (Alternates with course 521-523) **LUSSKY.**

\*731 (732) (733). **HISTORY OF GERMAN LITERATURE.**—The chief literary movements and monuments of German literature from the earliest times to the present. Prerequisites: 231-233, or 521-523, or 534-536. **LUSSKY.**

## *HISTORY AND POLITICAL SCIENCE*

PROFESSOR THOMAS, AND ASSISTANT PROFESSOR HAMILTON,  
ASSOCIATE PROFESSOR HANCOCK

The courses in this department are designed to form part of a general cultural education. They are essential to a thorough preparation for law, journalism, politics, ministry, or any other public calling. Course 131 (132) (133) is foundation work and should be taken in the Freshman year.

*Requirements for a Major in History:* forty-five credit hours in history and political science. Students expecting to teach history in the secondary schools should complete at least twenty-seven credit hours in the department. Course 131 (132) (133) should be the basis for this work, and courses 531-536 should follow.

### HISTORY

131 (132) (133). INTRODUCTION TO CONTEMPORARY CIVILIZATION.—The chief content of this course is history since 1500 with most emphasis on the period since 1815. Emphasis will be laid on economic, cultural, and political developments in an effort to help the student understand the civilization of to-day. For freshmen. THOMAS AND HAMILTON.

531 (532) (533). HISTORY OF THE UNITED STATES SINCE 1776.—A general course, dealing with political (including international), economic, and social questions. Some attention given to geography in its bearing upon the development of our history. Prerequisite: 131-133, or sophomore standing. THOMAS.

534 (535) (536). HISTORY OF ENGLAND TO 1923.—A general course treating of the political, religious, literary, and economic activities of the English people. The origin and growth of the more important institutions, such as kingship, parliament, courts, and the church; the struggle for democratic government, especially the great reforms of the nineteenth and twentieth centuries, and the movement for social betterment. A brief survey of the British Empire. Lectures and recitations throughout the year. Not open to freshmen. HAMILTON.

537. FRENCH REVOLUTION AND THE NAPOLEONIC ERA.—France on the eve of the Revolution; French political philosophers; causes and events of the Revolution; and the wars of Napoleon. Prerequisite: 131-132, or sophomore standing. Fall. THOMAS AND HAMILTON.

538. EUROPE IN THE NINETEENTH CENTURY.—A brief survey of Europe in 1815; the development of constitutional government; the unification of Italy and Germany; and the present condition of world politics. Prerequisite: 131-133, or sophomore standing. Winter. HAMILTON.

559. HISTORY OF HISPANIC AMERICA SINCE 1800.—A brief survey of the Spanish and Portuguese colonial systems; a careful study of the wars of emancipation; the rise and development of Hispanic American nations; the relations of these with foreign countries; and the development of Pan-Americanism. Special attention given to the Monroe, Calvo, and Drago doctrines. Prerequisite: 131-133, or junior standing. Spring. HAMILTON.

631. HISTORY OF GREECE.—The history and institutions of the Greeks. A general knowledge of the subject presumed. Prerequisite: 131-133, or sophomore standing. Winter. HANCOCK.

632. HISTORY OF ROME.—The history and institutions of the Romans. A general knowledge of the subject presumed. Prerequisite: 131-133, or sophomore standing. Spring. HANCOCK.

\*633. THE UNITED STATES, 1763-1789.—A study of the colonies in their relation to the mother country, with special reference to the attempt at imperial taxation. Particular attention will be given to the literature of the period, as preparing the colonies for separation. The steps leading to the Declaration of Independence, the failure of the Confederation, and the formation and adoption of the Constitution will be studied in detail. For juniors and seniors. Fall. THOMAS.

\*634. THE CIVIL WAR AND RECONSTRUCTION.—The first part of this course will deal mainly with the events leading up to the war; the second part with the political, social, and economic phases of Reconstruction. For juniors and seniors. Winter. THOMAS.

\*635. THE GREAT WAR.—The balance of power, imperial ambitions, nationalism, colonial and commercial rivalries, the race for armaments, the Great War and its results. Not open to freshmen. Spring. THOMAS.

\*636 (637) (638). HISTORY OF THE BRITISH EMPIRE.—The period of the formation of the English nation; then the rise and growth of the British Empire. A detailed study of the establishment and growth of the British colonies and dependencies in the West Indies, the Americas, Africa, Asia, and Oceania; the gradual development of a British imperial policy; and the British colonial administrative system. Especial attention paid to the struggle for the democratization of English institutions, and social legislation in the self-governing colonies of the Empire. Prerequisites: 131-133, and six more hours in history, or junior or senior standing. (Not offered 1922-23.) HAMILTON.

639. HISTORY OF THE PACIFIC AND THE FAR EAST.—This course will deal with the islands of the Pacific and with the countries of eastern Asia, particularly China and Japan, and their relations to the western nations. Spring. (Not offered 1922-23.) HAMILTON.

\*731. AMERICAN DIPLOMACY.—Covers the entire period of the history of the United States with special attention to the diplomacy of the Revolution and of the second war with England, the Monroe Doctrine and subsequent relations with Latin America, arbitration, Asiatic questions, the Great War, and the peace settlement. Prerequisite: fifteen hours of history or political science. Spring. THOMAS.

732. RACE RELATIONS.—The geographical distribution of the races of the world; the present situation of the white race as the dominant race; the history of the negro in America; and the

present day aspect of the race (Japanese as well as negro) question in relation to church, education, sanitation, and civil and economic justice. Open only to juniors and seniors. Spring. THOMAS.

### POLITICAL SCIENCE

531. AMERICAN STATE AND LOCAL GOVERNMENTS.—A brief review of the development of American state constitutions; the structure and workings of state governments as organized today, and some of the practical problems now before the states; a brief survey of county and municipal government. Prerequisite: 131-133, or sophomore standing. Winter. THOMAS.

532. AMERICAN NATIONAL GOVERNMENT.—A basic course for more advanced work in government. The organization of our national government and the work of the co-ordinate branches, but most emphasis laid upon the work of administration. Open to students who have completed not less than six credit hours in history. Prerequisite: 131-133, or sophomore standing. Spring. THOMAS.

533. POLITICAL PARTIES.—The origin and development of political parties in the United States and their present organization and activities. Prerequisite: nine hours of history, or sophomore standing. Fall. THOMAS.

\*534. COMPARATIVE GOVERNMENT.—The structures and powers of the national governments of the United States and of the leading European nations. Special attention given to the place of the federal system in public law. Open only to juniors and seniors. Fall. THOMAS.

\*535. INTERNATIONAL LAW.—The development of international law and of the usages and principles now considered binding on civilized nations. Open only to juniors and seniors. Considerable outside reading. Winter. THOMAS.

### MATHEMATICS AND ASTRONOMY

PROFESSOR DROKE, PROFESSOR HARDING, EMERITUS ASSOCIATE  
PROFESSOR DUNN, MISS HUGHES, MR. TAYLOR

The courses in this department are designed to meet the requirements of: (1) students in engineering; (2) students who expect to teach mathematics; and (3) students who are interested in mathematics for the sake of the subject itself.

*Requirements for a Major in Mathematics:* fifty credit hours, including courses 154, 155, 156, 234 (235) (236), 531 (532), 237 (238) (239), and 636 (637), or 631 (632), or their equivalent. Students in engineering may elect, in addition to the prescribed courses, 631 (632). Students who are preparing to teach mathematics in the secondary schools must complete Mathematics 154, 155, 156, 234 (235) (236), 237 (238) (239), and Astronomy



151 (152). They should also take courses in the teaching of secondary mathematics and in the history of mathematics. These courses will be offered when there is demand for them. Students who desire only a general knowledge of the subject may take Mathematics 154 (155) (156), and Astronomy 151 (152).

#### MATHEMATICS

51 (52). PLANE GEOMETRY.—A collegiate treatment of plane geometry designed for students who offer no geometry for entrance. May be taken by students in the Colleges of Engineering and of Agriculture to remove entrance deficiencies. Five hours a week. Fall and winter. HUGHES.

151 (152). PLANE GEOMETRY.—Same as 51 (52). For students in the Colleges of Arts and Sciences, and of Education. Fall and winter. HARDING.

54. ELEMENTARY ALGEBRA.—A collegiate treatment of advanced high school algebra, designed for students who offer only one unit in algebra for entrance. May be taken by students in the Colleges of Engineering and of Agriculture to remove entrance deficiencies. Five hours a week. Fall. HARDING.

154. ELEMENTARY ALGEBRA.—Same as 54. For students in the Colleges of Arts and Sciences, and of Education. Fall. HUGHES.

155. SOLID GEOMETRY.—Primarily for students in the Colleges of Arts and Sciences, and of Education, who offer one unit of plane geometry for entrance. Spring. Prerequisite: 152. HUGHES

156. PLANE TRIGONOMETRY.—Especially for students in the Colleges of Arts and Sciences, and of Education, who offer one unit of plane geometry for entrance. Winter and spring. Prerequisite: 154. DROKE.

157. COLLEGE ALGEBRA.—Primarily for students in engineering who offer at least one and one-half units in algebra for entrance. Fall and winter. HUGHES AND TAYLOR.

128. SOLID GEOMETRY.—Primarily for students in engineering. Third term of freshman year. HUGHES AND TAYLOR.

139. ADVANCED ALGEBRA.—Primarily for students in engineering. Third term of freshman year. Prerequisites: 157. HUGHES AND TAYLOR.

234 (235) (236). ANALYTIC GEOMETRY.—Primarily for students in the Colleges of Arts and Sciences, and of Education, who offer at least one unit in algebra and one unit in plane geometry for entrance. Prerequisite: 156, 157. HUGHES.

237 (238) (239).—DIFFERENTIAL AND INTEGRAL CALCULUS.—An introductory course. May be taken by sophomores together with 234 (235) (236). Prerequisites: 156, 157. HUGHES.



247. ALGEBRA AND PLANE TRIGONOMETRY.—For students in the College of Agriculture, including a study of factoring, fractional equations, theory of exponents, radicals, and quadratic equations; trigonometric functions, functions of multiple and sub-multiple angles, and solution of triangles. Fall TAYLOR.

251 (252). DIFFERENTIAL AND INTEGRAL CALCULUS.—For students in engineering. Winter and spring. Prerequisite: 256. TAYLOR.

256. ANALYTIC GEOMETRY.—A continuation of course 128, primarily for engineering students. First term of sophomore year. Prerequisites: 128, 157. HUGHES AND TAYLOR.

531 (532). ADVANCED ALGEBRA.—For students who have completed course 154. Winter and spring. DROKE.

\*636 (637) (638). ADVANCED CALCULUS.—A continuation of course 237 (238) (239). DROKE.

\*535 (536) (537). HIGHER ALGEBRA. HARDING.

731 (732). MATHEMATICS OF FINANCE.—This course treats of the relation of interest to long-time investments, the cumulative effect of compound interest, and its relation to annuities, to insurance, to the evaluation and amortization of securities, to the creation of sinking funds, and to funds such as those of building and loan associations. Winter and spring. Prerequisite: Five hours of college mathematics. TAYLOR.

\*631 (632) (633). DIFFERENTIAL EQUATIONS.—Prerequisite: 239. DROKE.

### ASTRONOMY

151 (152) ELEMENTARY DESCRIPTIVE ASTRONOMY.—Lectures and recitations five hours a week, with occasional meeting at night for observation. No knowledge of college mathematics necessary. Fall and winter. HARDING.

### MILITARY ART

MAJOR HALPINE, CAPTAIN DILL, SERGEANTS GREATHOUSE AND KIKER

Under the provisions of the Act of Congress, approved July 2, 1862, all male students in their freshmen and sophomore years are required to take Military Art. The course may be elected in the junior and senior years. Officers of the United States Army are detailed to act as professors.

### RESERVE OFFICERS' TRAINING CORPS

The University of Arkansas has complied with the requirements of the War Department and has been officially designated as one of the civil institutions at which shall be maintained units of the Senior Division of the Reserve Officers' Training Corps.

Eligibility is limited to students who are citizens of the United States, who are not less than fourteen years of age, and whose physical condition indicates that they are fit to perform military duty, or will be so fit upon arrival at military age.

The course is divided into two parts of two years each; the Basic Course covering the freshman and sophomore years, and the Advanced Course, covering the junior and senior years. Camps, of six weeks duration, are held during the summer. These camps are subdivided into Basic Camps and Advanced Camps. Attendance at the former is voluntary and is open to all members of the Basic Course. Attendance at the latter is open to members of the Advanced Course only, and attendance at one Advanced Camp, prior to graduation, is required of all members of the Advanced Course. All expenses at these Camps, including transportation to and from camp, are paid by the government.

At the conclusion of the sophomore year, those students, who have shown marked ability as leaders, who have satisfactorily completed the Basic Course, and whose scholastic standing in other academic subjects is good, are recommended as eligible for the further training of the Advanced Course by the Professor of Military Science and Tactics, and with the approval of the President of the institution are allowed to enroll in the Advanced Course. Those who so enroll are required to agree in writing to continue in the Corps for the remaining two years and to attend at least one Advanced Camp prior to graduation. Members of the Advanced Course are paid commutation of subsistence, by the government, during the remainder of their service in the Corps at the rate of about twelve dollars a month. Men who satisfactorily complete the four years course will be offered Commissions in the Officers' Reserve Corps as Second Lieutenants of Infantry.

Students may provide their own uniform, or a uniform will be issued by the Government on deposit of \$15, the deposit to be returned when the uniform is turned in. An additional uniform is furnished those in attendance at Summer Camps. Those attending the Advanced Camp receive pay at the rate of one dollar a day. The total money value of uniform received, commutation of subsistence, rations in kind at Camp, pay at Camp, and transportation to and from Camp for each man who completes the four year course, is \$659.04. There is the privilege of special technical training (see outline of courses below) in various fields without any tuition fee.

111 (112) (113). BASIC COURSE, FIRST YEAR.—Theoretical and practical instruction in organization, physical training, military courtesy and customs of the service, infantry drill including close and extended order and ceremonies, scouting and patrolling, and rifle marksmanship. GREATHOUSE AND KIKER.

211 (212) (213). BASIC COURSE, SECOND YEAR.—Theoretical and practical instruction in map reading and military sketching,

military hygiene, first aid and sanitation, physical training, infantry weapons including the bayonet, automatic rifle, hand grenade and rifle grenade, musketry, and the art of leadership. HALPINE, DILL.

531 (532) (533). *ADVANCED COURSE, FIRST YEAR.*—Theoretical and practical instruction in the rules of land warfare, military law and its relation to civil law, machine guns, 37 m/m gun, trench mortar, field engineering, physical training, and the art of leadership. DILL.

631 (632) (633). *ADVANCED COURSE, SECOND YEAR.*—Theoretical and practical instruction in military history, administration and supply, organization, minor tactics including the employment of the auxiliary infantry weapons, physical training, and the art of leadership. HALPINE.

### *PHYSICAL EDUCATION (FOR WOMEN)*

MISS GREEN, MISS ASKEW

The purpose of the work is to improve the standard of health, and to increase the physical efficiency of the young women. A physical examination is made of every student upon entrance and at such intervals throughout the year as may seem necessary. The work is conducted in the indoor gymnasium and during suitable weather on outdoor courts. The uniform worn consists of a white middie-blouse, black serge bloomers, and gymnasium shoes purchased at the University. The courses in physical education are required of all women students during their freshman and sophomore years. A maximum of nine credit hours may be used toward graduation.

111 (112) (113). *ELEMENTARY PHYSICAL EDUCATION.*—General gymnastics, games, and lectures on personal hygiene. Two hours. GREEN, ASKEW.

211 (212) (213). *INTERMEDIATE PHYSICAL EDUCATION.*—General gymnastics, athletic games, æsthetic and folk dancing. Two hours. GREEN, ASKEW.

511 (512) (513). *ADVANCED GYMNASICS.*—Outdoor games, athletics, and folk dancing. Two hours. GREEN.

514 (515) (516). *ADVANCED DANCING.*—Two hours. GREEN.

517 (518) (519). *THE TEACHING OF PHYSICAL EDUCATION.*—Theoretical and practical work, designed for prospective public school teachers. Two hours. GREEN.

### *PHYSICS*

PROFESSOR RIPLEY, ASSISTANT PROFESSOR HILL

The courses in this department are designed (1) for students in the courses in engineering, agriculture, and chemistry, as

part of their required curriculums, and (2) for students in other courses who desire a general knowledge of the subject or who wish to prepare for the study of medicine, or for teaching or graduate work.

*Requirements for a Major in Physics:* forty-five term hours, including courses 141-3, or 144-6 or 147-9; 231-3; 527-9; 533; 634; 628-9; 618-9. Students who are preparing to teach physics in the secondary schools should complete as a minimum requirement courses 141-143, 234-6, and 527-9.

141 (142) (143). **EXPERIMENTAL PHYSICS.**—A non-mathematical course in physics designed for students who desire to secure a general knowledge of the subject and of its application to everyday life. The experimental and practical phases are stressed. Open only to students offering no entrance credit in physics. Lectures and recitations three hours a week, laboratory work two hours a week. Fee, \$1.50 each term. HILL.

144 (145) (146). **EXPERIMENTAL PHYSICS.**—Similar to 141 but more advanced. Open to students offering physics for entrance credit. Lectures and recitations three hours a week, laboratory work two hours a week. Fee, \$1.50 each term. RIPLEY.

144A (145A). **EXPERIMENTAL PHYSICS.**—A course arranged for agricultural students, covering the subjects of mechanics, heat, and electricity in two quarters. The practical phases of the subject are stressed. Fall and winter. Fee, \$1.50 each term. RIPLEY.

147 (148) (149). **GENERAL PHYSICS.**—A general course more mathematical than the courses described above. Not open to students who have taken course 141 or 144. Required of all engineering students. The application of physical laws to engineering problems and the solution of such problems. Mechanics, heat, electricity, and magnetism are emphasized. Lectures and recitations three hours a week, laboratory work two hours a week. Fee, \$1.50 each term. RIPLEY AND HILL.

\*231, 232, 233. **THEORETICAL PHYSICS.**—An advanced course in General Physics dealing with the development of formulæ and the application of formulae and laws to the solving of problems. Lectures and recitations three hours a week. Prerequisites: 141-143, or 144-146, or 147-149. RIPLEY.

\*517, 518, 519. **LABORATORY PHYSICS.**—Exercises in the determination of moments of inertia, of center of mass, of Young's modulus, coefficient of viscosity, and of thermal expansion; of heats of fusion and vaporization, of capacity, of high and low potentials, photometric measurements, etc. Laboratory work three hours a week. Prerequisites: 141-143, or 144-146, or 147-149. Term credit allowed. Fee, \$1.50 each term. RIPLEY.



\*527, 528, 529. **LABORATORY PHYSICS.** Same as preceding, but with six hours of laboratory work each week. Fee, \$3.00 each term. RIPLEY.

\*533. **HEAT.**—Thermometry, heats of combustion, specific heats of solids, liquids, and gases; vapor densities, and the laws of thermo-dynamics. Lectures and recitations two hours a week, laboratory work three hours a week. Spring. Prerequisite: 231-233. Fee, \$1.50. RIPLEY.

\*634. **LIGHT.**—The modern theory of light with a consideration of the recent advances in this branch of physics. The theory of optical instruments, dispersion, diffraction, polarization, etc. Lectures and recitations two hours a week, laboratory work three hours a week. Fall. Prerequisite: 231-233. Fee \$1.50. RIPLEY.

\*628 (629). **ELECTRICITY AND MAGNETISM.**—An advanced course in the study of the fundamental units and quantities of electricity and magnetism with special emphasis on accurate methods of determination, and the derivation of the equations involved. Designed for students in electrical engineering, and for advanced students in physics, and mathematics. Two recitations a week. Winter and spring. Prerequisite: 231-233. HILL.

\*618 (619) **ELECTRICAL MEASUREMENTS.**—A laboratory course to follow or accompany 628-9. Laboratory work three hours a week. Winter and spring. Fee, \$1.50 each term. HILL.

### PSYCHOLOGY AND PHILOSOPHY

PROFESSOR A. M. JORDAN, PROFESSOR J. R. JEWELL.

The aim of the courses is primarily to acquaint students with the workings of the human mind, and secondarily to make clear and evident the mental factors involved in many of the transactions of everyday life. Students preparing for teaching law, business, medicine, politics, or the ministry will find these courses of great benefit.

*Requirements for a Major in Psychology and Philosophy.* forty-five credit hours in psychology and philosophy. These should include courses 140, 246, 341, 342, 343 in psychology, and 330 and 340 in philosophy.

Students majoring in psychology should elect courses in zoology and physiology.

Besides the courses appearing below, students are offered courses in Educational Psychology in the College of Education. It is recommended that students begin their psychology in the sophomore year.

### PSYCHOLOGY

140. **GENERAL PSYCHOLOGY.**—A general introduction to the study of mental life, investigating such subjects as the emo-



tions, the instincts, sensations, general intelligence, the relations between mind and body, etc. This course is offered each term. JORDAN.

144. **ADVANCED GENERAL PSYCHOLOGY.**—Similar to 140. Designed for those who have had one-half year of psychology in high school. Fall. JORDAN.

\*243. **PSYCHOLOGY OF RELIGION.**—The growth of religious consciousness in the individual rather than in the race. A thorough consideration of the various phases of conversion; then the same topics are studied again as elements of a spontaneous religious development. Prerequisite: 140 or 144. Spring. JEWELL.

244. **VOCATIONAL PSYCHOLOGY.**—The history of the more important vocations and the manner in which selections have been made for them. The principal occupations and the peculiar needs to be met by those attempting to fill them, with due emphasis on the methods now employed in determining the fitness of individuals. Prerequisite: 140. Spring. JORDAN.

246. **EXPERIMENTAL PSYCHOLOGY.**—The experimental method and its technique, and the laws of psychology. Problems in the learning process which have direct bearing on sensory, motor, and perceptual learning, on memory, imagination, and reasoning. Prerequisite: 140. Lectures and laboratory four hours. Winter. JORDAN.

\*341. **SOCIAL PSYCHOLOGY.**—Public opinion, custom, imitation, psychology of leadership, conflict, discussion, compromise, mob mind, social will, communication, and the crowd. An insight into present social problems by showing how consciousness has been developed in home, school, neighborhood, and society. Prerequisite: 140. Fall. JORDAN.

\*342. **INDIVIDUAL PSYCHOLOGY.**—The innate and acquired differences apparent among individuals. The contribution of near ancestry, remote ancestry, maturity, sex, and environment to the facts of individual differences. Prerequisite: 140. Winter. JORDAN.

\*343. **PSYCHOLOGY OF THE ABNORMAL.**—The psycho-physical conditions and mental phenomena of illusions, hallucinations, dreams, sleep, automatisms, somnambulism, hypnotism, suggestion, dissociation, double and multiple personalities, and the insanities proper. Prerequisite: 140. Spring. JORDAN.

\*345, 346. **PHYSIOLOGICAL PSYCHOLOGY.**—For those expecting to do extensive work in psychology. A thorough study of the nervous system, and general attempt to trace out the various processes of consciousness. The sensations, perception, learning, thinking from the physiological point of view. Prerequisites: 140, 246. Winter and spring. JORDAN.

531. **PSYCHOLOGY OF ADVERTISING.**—The fundamental psychological principles underlying successful advertising. The processes of catching and holding attention, of interest, and of suggestion. Prerequisite: 140. Winter. JORDAN.

### PHILOSOPHY

330. **LOGIC.**—The application of logic to the practical problems of everyday life, including inductive and deductive reasoning, with special reference to argumentation and debate. A foundation for further philosophical study. Prerequisite: Psychology 140. Spring. JEWELL.

331. **ETHICS.**—The growth of ethics in history, and better methods of estimating and controlling conduct. The moral problems that have confronted people from primitive times to the present, and comparisons between individual and group morality. Prerequisite: Psychology 140. Fall. JEWELL.

340. **HISTORY OF PHILOSOPHY.**—An introduction to philosophy, through a study of typical world view: Greek, Roman, medieval Christian, Renaissance, and modern. Prerequisite: Psychology 140. Winter. JEWELL.

341. **INTRODUCTION TO PHILOSOPHY.**—A survey course, in which the main fields of philosophy are mapped out, the permanent problems indicated, and the chief methods employed in their solution discussed. Prerequisite: Psychology 140. Spring. JEWELL.

### ROMANCE LANGUAGES

PROFESSOR MARINONI, ASSOCIATE PROFESSOR KESSLER, ASSISTANT PROFESSOR PASSARELLI

The courses offered in this department are intended to give students a fair knowledge of the French, Italian, and Spanish languages and to stimulate knowledge and appreciation of the literary attainments of the Latin people. In the higher courses emphasis is laid especially on the study of literature. In order to give students an opportunity to become familiar with the spoken idiom, several advanced courses are conducted in the language which forms the object of study.

*Requirements for a Major in Romance Languages:* fifty-four term hours to be chosen from the following courses, exact requirements to be arranged with the professor in charge—French 141 (142) (143), 551 (552) (553), 534 (535) (536), 537 (538) (539), and 525 (526) (527), 621 (622) (623); Spanish 141 (142) (143), 531 (532) (533), and Italian 521 (522) (523); or Spanish 141 (142) (143) and Italian 141 (142) (143), 531 (532) (533). Major students, upon completing the required work, are expected to have a fair speaking knowledge of at least one language. They must also take course 514 (515) (516) offered by the Department of Ancient Languages. Students pre-

paring to teach either French or Spanish in the secondary schools should complete at least thirty-six credit-hours in the language chosen, and in addition include a course in the teaching of modern languages. Such students are urged to do at least one year of practical teaching in the University High School.

### FRENCH

141 (142) (143). **ELEMENTARY FRENCH.**—Grammar, reading, dictation, and composition. Pronunciation is carefully taught and oral drill insisted upon. **KESSLER, PASSARELLI.**

551 (552) (553). **FRENCH PROSE AND POETRY.**—Composition, sight reading, syntax, and conversation. Reading of representative works of modern French authors. Prerequisite: 141-143. **KESSLER AND PASSARELLI.**

\*525 (526) (527). A survey of French Literature. Prerequisite: 551-553. **MARINONI**

\*534 (535) (536). **FRENCH LITERATURE OF THE SEVENTEENTH CENTURY.**—A general view of the classic period. The most important literary productions are read and analyzed. Lectures and recitations in French, with a considerable amount of outside reading. Prerequisite: 551-553. **MARINONI.**

\*537 (538) (539). **FRENCH LITERATURE OF THE NINETEENTH CENTURY.**—Lectures and recitations in French, with readings from the leading authors of the Romantic period. Prerequisite: 551-553. **MARINONI.**

\*531 (532) (533). **FRENCH POETRY.**—French poetry of the nineteenth century. Lectures and recitations. Prerequisites: 551-553 and 525-527. **MARINONI.**

\*514 (515) (516). **FRENCH DRAMA.**—The evolution of the French drama from its origin to the present day. Lectures and recitations in French, with some outside reading. The permission of the instructor must be secured. Prerequisite: 525-527. **MARINONI.**

621 (622) (623). **ADVANCED FRENCH COMPOSITION.** **KESSLER.**

\*637 (638) (639). **BALZAC.**—The life and works of Balzac. Lectures and recitations. Prerequisite: 551-553. **MARINONI.**

### ITALIAN

141 (142) (143). **ELEMENTARY ITALIAN.**—Grammar, composition, dictation, and conversation. **MARINONI.**

531 (532) (533). **ADVANCED ITALIAN.**—Syntax, composition, conversation, and reading of representative modern works. The second term will be devoted to the study of Dante's *Inferno*. Prerequisite: 141-143. **MARINONI.**

## SPANISH

141 (142) (143). **ELEMENTARY SPANISH.**—Grammar, composition, dictation, conversation, and reading of easy texts. MARINONI AND PASSARELLI.

531 (532) (533). **ADVANCED SPANISH.**—Syntax, composition, conversation, and reading of representative modern works. Class work is conducted largely in Spanish. Prerequisite: 141-143. MARINONI.

\*534 (535) (536). **SPANISH LITERATURE.**—Lectures, reports, and reading of standard works. Class work is conducted in Spanish. Prerequisite: 531-533. MARINONI.

537 (538) (539). **COMPOSITION AND CONVERSATION.** PASSARELLI.

## ZOOLOGY

PROFESSOR PICKEL, ASSISTANT PROFESSOR DELLINGER

The courses in zoology are designed to teach the fundamental facts of zoological science, including the laws of development, heredity, variation, and correlation, and the economic importance of animals.

*Requirement for a Major in Zoology:* forty-five credit hours, to include courses 144 (145) (146), 241 (242) (243), 541 (542) (543), 552, 453, 331, 631 and 633. Students preparing to study medicine are advised to select courses 144 (145) (146), 541 (542) (543), 552, 453, 241 (242) (243) and 633. Students who expect to teach zoology in secondary schools should take courses 144 (145) (146), 241 (242) (243), 533, 631, and 633.

132 (143). **ECONOMIC ZOOLOGY.**—The fundamental facts of zoology as applied to agriculture. Special attention devoted to development, heredity, variation, and parasitism. Open only to agricultural students. Winter and spring. Fee, \$2.25 each term. DELLINGER.

144 (145) (146). **GENERAL ZOOLOGY.**—The fundamental facts of zoological science, including the laws of development, heredity, variation, and correlation. Field work on local fauna. Lectures and recitations two hours, laboratory and field work four hours. No prerequisite. Fee, \$2.25 each term. DELLINGER.

\*541 (542) (543). **COMPARATIVE ANATOMY OF VERTEBRATES.**—An advanced study of the structures and classification of vertebrates. Lectures and recitations two hours, laboratory four hours. Prerequisite: 144-146. Fee, \$3.00 each term. PICKEL.

\*552. **ANIMAL HISTOLOGY.**—Histological methods of technique. Human tissue is used when possible. Primarily for students preparing for medicine. Lectures and recitations three hours, laboratory four hours. Prerequisite: 144-145. Winter. Fee, \$3.00. PICKEL.

\*453. **EMBRYOLOGY.**—Vertebrate embryology with regard to or-

ganogeny in the chick, pig, and man. Lectures and recitations three hours, laboratory four hours. Prerequisite: 144-146. Spring Fee, \$3.00. PICKEL.

241 (242) (243). PHYSIOLOGY.—The physiology and hygiene of the human body. A knowledge of elementary physiology required. Lectures and recitations two hours, laboratory four hours. Not open to freshmen. Fee, \$2.25 each term. PICKEL.

331. GENERAL HYGIENE.—Personal and public hygiene from a general rather than a technical standpoint. Lectures and recitations two hours, laboratory two hours. Not open to freshmen. Fall. Fee, \$1.50. PICKEL.

631. THEORETICAL BIOLOGY.—Variation, selection, evolution, heredity, and some of the broader and more general problems of biology. This course will be followed by genetics (Botany 341). Prerequisite: 144-146; or open to seniors with special permission. Fall. Fee, \$2.00. DELLINGER.

633. HEREDITY AND EUGENICS.—Race improvement and the general principles of heredity as applied to man. Prerequisite: 631. Fee, \$2.00. Spring. DELLINGER.

311 (312) (313). ZOOLOGICAL SEMINAR.—Discussion of articles in zoological magazines. Prerequisite: 144-146. PICKEL.

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## COLLEGE OF EDUCATION

The purpose of the College of Education is to unite and correlate the forces of the University which contribute to the preparation of educational leaders in teaching and supervision, whether rural, elementary, secondary, or executive.

The curriculum is based upon the assumption that teachers should have, first of all, and fundamental to all other preparation, a broad and liberal education; secondly, that they should be masters of the special subject they expect to teach; and, thirdly, that this training should be supplemented by professional courses designed to give them a knowledge of the minds of the pupils to be taught and the problems to be met, with a thorough course in practice teaching under experienced critic teachers.

### ADMISSION

For a statement of the entrance requirements and a description of the subjects accepted for entrance see previous pages.

### COURSES OF STUDY

The College of Education offers a four-year course leading to the degree of *Bachelor of Science in Education* (B. S. E.) and a graduate course leading to the degree of *Master of Science*



(M. S.). The certificate of Licentiate of Instruction for elementary teachers may be obtained in a minimum of two years by completing all prescribed courses as noted on following pages, and under requirements for Teacher's Certificate.

## REQUIREMENTS FOR DEGREE

### *BACHELOR OF SCIENCE IN EDUCATION*

The candidate must meet the entrance, residence, and registration requirements, and must complete satisfactorily at least two hundred and one term hours in approved courses, or one hundred ninety-eight term hours in the teacher-training course in Vocational Home Economics, with the following restrictions:

1. Prescribed courses as follows: English 131 (132) (133), nine hours; education and psychology, thirty-six hours, including psychology 140, education 140, 141, 142 or 243, and 240; military art, six hours (for men), or physical education, six hours (for women).

2. Elective courses to be chosen from the following groups with the restrictions noted below:

Group 1. English, French, German, Greek, Italian, Latin, and Spanish.

Group 2. Astronomy, botany, chemistry, geology, mathematics, physics, and zoology.

Group 3. Economics, education, history, political science, philosophy, sociology, and home economics.

Group 4. Agricultural subjects, engineering subjects, fine arts, law, medicine, military art, and physical education.

a. The candidate may elect not more than sixty hours from any one subject, and not more than one hundred twenty hours from any one group, except by special permission of the dean of the college.

b. The candidate must select, not earlier than the beginning of his sophomore year and not later than the beginning of his junior year, one major subject, in which he must complete at least forty-five credit hours, and two minor subjects, in which he must complete at least twenty-seven and eighteen credit hours, respectively, subject to the approval of the head of the department and the dean of the college. The major subject in every case shall be chosen from the group in which the student finds the subject matter he is preparing to teach. A description of the major requirements of each department will be found under the departmental statements.

c. The candidate must elect not less than twenty-seven hours from each of the first three groups unless he is preparing to teach some subject found in group 4, or unless he is enrolled in

one of the Smith-Hughes vocational courses, in which case he should consult with the dean concerning his course.

d. Students who find their major or minor in group 4 should in every case consult the Dean concerning their courses of study. The College of Education gives full credit for work in music, i. e., one hour of credit is given in each term for courses 111 to 119, inclusive. However, one year in piano, violin, or voice must be completed in college before the student may enroll for credit in that subject. This does not apply to pipe organ, which has piano as a prerequisite. No credit is allowed unless the student takes at least two lessons a week.

e. The candidate should conform as closely as possible to the following schedule in the distribution of his work, except that professional courses may well be taken in the sophomore year instead of the freshman by those who are working for a Bachelor's degree.

### *Freshman Year*

Course	CREDIT HOURS		
	FALL	WINTER	SPRING
English 131 (132) (133).....	3	3	3
Psychology 140 .....	4	..	..
Education 141.....	4	..	..
Education 140 .....	..	4	..
Education 131 or 143.....	..	3	..
Military Art (or) Physical Education.....	1	1	1
*Elective .....	4	5	12
	16	16	16

### *Sophomore Year*

Military Art (or) Physical Education.....	1	1	1
*Elective .....	16	16	16
	17	17	17

### *Junior Year*

*Elective .....	17	17	17
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### *Senior Year*

Education 240 .....	4	4	4
*Elective .....	13	13	13
	17	17	17

## MASTER OF SCIENCE

The degree of *Master of Science* is granted for graduate work based on a four-year undergraduate course and a degree of either *Bachelor of Arts* or *Bachelor of Science in Education* from this institution or any other institution of equal standing. Before a student may become a candidate for the degree, how-

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\*To be chosen with the consent and advice of the candidate's major professor, so as to include not less than ten credit hours in Psychology and Education, and so as to meet the prescribed requirements outlined above.

ever, his petition for admission to graduate standing must receive the approval of the Senate Committee on Graduate Study and the dean of the college.

1. The minimum time in which a candidate may be permitted to complete the work for the degree is one academic year. In individual cases, when the committee deems it necessary, more than one year may be required.

2. The candidate is required to complete one major subject and not more than two minor subjects in closely related courses, except as noted below. The major subject, occupying with the thesis twenty-four credit hours, must be one in which the candidate has received credit in his undergraduate course for at least thirty-six credit hours. The minor subjects, occupying together eighteen credit hours, must be ones in which he has received credit in his undergraduate course for at least eighteen credit hours each.

The admission to candidacy for the Master's degree in the case of men and women of maturity who have clearly demonstrated distinct ability in a special field, and whose undergraduate credits would not meet the numerical requirements of the preceding rule, together with, in every case, the choice of a candidate's major and minors, is subject to the approval of the committee, the dean of the college, and the major professor

3. Teachers of Smith-Hughes work holding a Bachelor's degree from the University of Arkansas, or from another institution of similar grade, and having met the other Federal requirements for Smith-Hughes teaching, will be eligible for admission to candidacy for the degree of Master of Science.

4. Forty-two of the forty-eight hours required of the candidate must be regular class-room work. Candidates who are graduates of this University may pursue one-half of the required work by correspondence, provided their undergraduate records are satisfactory to the committee and to the dean of the college.

5. A student may be admitted to graduate standing, without becoming a candidate for a degree, by permission of the committee and the dean of the college.

### *REQUIREMENTS FOR A TEACHER'S CERTIFICATE*

The teacher's certificate is granted in accordance with the law of the State of Arkansas, which reads:

"That the diploma from the teachers' training department of the University of Arkansas shall be equivalent to a teacher's professional license, which shall entitle the holder to teach in any public school in the State of Arkansas for a period of six years from and after the date of issue. At the expiration of said period such diploma may be converted into a life certificate,

provided that the character of the work done by the holder thereof, and his or her moral character, shall meet with the approval of the Superintendent of Public Instruction of the State of Arkansas."

The only degree given by the University of Arkansas which in itself entitles the holder to teach in the schools of this state, or of other states requiring professional preparation of its teachers, is the degree of Bachelor of Science in Education. Graduates holding other degrees are required to pass examinations for teachers' certificates, unless they also have certificates granted by the College of Education for not less than thirty-six hours of professional work, which must include the requisite amount of work.

A student who intends to take a degree in another college of the University should register in that college. If, in addition, he expects to take the teacher's certificate in the College of Education, he must also be registered in the College of Education during the terms in which he is doing his strictly professional work—Education 141, 142 or 243, and 240—as the course is at present arranged.

All students are advised to do their practice teaching as late in the college course as possible. Those preparing for teaching in the primary grades may, if necessary, do their teaching during the sophomore year. Students preparing to teach in high school will spend at least two years, preferably three, taking academic courses in the subjects they wish later to teach, and take a special methods course in the year prior to the one in which they will do their practice teaching, which will be done not earlier than the junior year. It is hardly possible to place a high school teacher who lacks a degree from a standard college or university.

It sometimes happens that the student finds it necessary to engage in teaching after his second year in college. Such student, in order to secure the teacher's certificate at the end of the sophomore year, must be registered in the College of Education during both the freshman and sophomore years. If he intends eventually to take a degree in some other college, he may also register in that college during the freshman and sophomore years.

Students in other colleges, who expect to receive the teacher's certificate at some time in the college course, are advised to consult with the dean of the College of Education not later than the end of the freshman year.

### PRACTICE TEACHING

Opportunity for practice teaching in all the usual elementary and secondary subjects, as well as agriculture, home economics, manual training, and physical training is provided in the University Training High School. Psychology 140 and Education 141, 142 or 243, and 140 are prerequisite to practice teaching. Stu-

dents should determine as early as possible subjects which they desire to teach and should prepare themselves thoroughly in those fields. No student shall be assigned to practice teaching unless he has made special preparation in the work for which he is applying.

All assignments to classes are made by the Director of the Training School. Before registering for teaching, students must consult with him and submit, in addition to a recommendation from the department in which special preparation has been made, a statement from the Registrar of the courses completed in education and in the academic subject which the student proposes to teach. Special blanks for this purpose may be secured at the office of the Director of Training.

#### RECOMMENDATION BUREAU

The College of Education maintains a Recommendation Bureau, the purpose of which is to place properly in teaching positions those of its students and graduates whose teaching ability is satisfactory to the faculty of this college and whose major professors concur in this recommendation. Since such recommendations are worthless unless based on personal knowledge, the Bureau manifestly cannot place its services at the disposal of teachers concerning whose teaching ability the members of the staff of critic teachers know nothing. It is still possible to find positions for primary and grade teachers who possess a certificate given at the close of two years of college work. It is not possible, however, to place high school teachers in good positions unless they have earned a college degree. Every year there are many more requests for teachers than there are graduates available. Graduates need not leave the state to secure important positions at good salaries. Students looking forward to teaching in other states should, however, confer with the dean as to the requirements for teaching in such states. In general the requirement is a minimum of twenty-seven term hours of professional work following a course in general psychology.

#### VOCATIONAL TEACHER TRAINING

The University of Arkansas has been designated by the Federal government as the institution in which all the teacher training in the State of Arkansas under the Smith-Hughes Act shall be done. A Department of Vocational Teacher Training has been established in the College of Education; there have been added to the faculty, also, professors of agricultural education, a professor of education in the trades and industries, a professor of home economics education, and four critic teachers to supervise the practice teaching of students. Other professionally trained critic teachers will be added to the faculty as soon as any considerable body of students is enrolled in the later years of the courses involved.

It is the intention both of the Federal Board, as well as of the



Arkansas Board which will have charge of the Smith-Hughes work, that teachers who prepare themselves for the work by graduation from any one of the courses given below shall be employed for an entire year, rather than for a few months only, and shall receive liberal salaries. A certain amount of practical experience will be required in addition to college graduation. The courses given below in detail are tentative only and probably will be slightly altered from time to time as experience makes necessary.

It is worthy of note that the vocational training courses planned by the University of Arkansas comprised the first state scheme to be approved by the Federal Board.

Candidates for admission to these courses must present fifteen units of high school work or the equivalent. A student desiring to teach Agriculture shall for the first two years take the general agricultural course. At the beginning of the third year, he shall register in both the College of Agriculture and the College of Education. He may then take his degree in the College of Agriculture along with the teacher's certificate in the College of Education, or he may take his degree in the College of Education with agricultural education as a major. Not later than the beginning of the junior year, and earlier if possible, students expecting to teach agriculture should consult with the Professor of Agricultural Education with regard to the arrangement and selection of courses. The teacher training in vocational agriculture may be taken only by persons who have had at least two years of vocational agricultural experience, or who are acquiring such experience as a part of their training. Each one of these courses covers four college years and is especially prepared for teachers of these respective vocational subjects. Each course consists of two hundred four term hours of work, a certain part of which must be in scientific project work in the vocation involved, and twenty-nine or thirty term hours in professional subjects, including practice teaching.

#### THE FOLLOWING PROFESSIONAL COURSES ARE AN UNVARYING REQUIREMENT

Psychology	242	Psychology of Teaching	4 term hours
Education	141	The Teaching Process	4 term hours
Education	240	Practice Teaching	12 term hours
Education	143	Principles of Secondary Education	4 term hours
Education	330 or 332, or Home Economics	341,	
Vocational Methods Course			3 or 4 term hours

#### VOCATIONAL HOME ECONOMICS TEACHER'S TRAINING COURSE

(For the first two years see College of Agriculture.)

The teacher's certificate, in addition to the degree of Bachelor of Science in Home Economics, is granted to all candidates for a degree who complete the following courses. This course is offered by agreement between the College of Education and the

College of Agriculture and is designed especially for the training of teachers of Vocational Home Economics in Smith-Hughes Vocational schools.

Course	Credit Hours
Chemistry 241, 242.....	8
Food Economics (H. E. 331, 332).....	6
Dietetics (H. E. 334, 335, 336).....	9
Education 141 Teaching Process.....	4
Education 140 History of Education.....	4
Education 243 Principles of Secondary Education.....	4
Methods of Teaching Home Economics (Ed. 341).....	4
Practice Teaching (Ed. 240).....	12
Household Management (H. E. 361).....	6
House Planning (H. E. 441).....	4
House Furnishing (H. E. 442).....	4
Women and Social Work (H. E. 443).....	4
Textiles and Clothing Economics (H. E. 234, 235, 236).....	9
Study of Costume (H. E. 221).....	2
Farm Conveniences.....	2
Bacteriology 342.....	4
Household Problems (H. E. 224).....	2
Electives.....	9
<b>Total.....</b>	<b>96</b>
Home Economics Subjects.....	33%
General and Electives.....	25%
Professional.....	2%
Related Subjects.....	28%

#### FOUR-YEAR COURSE IN VOCATIONAL AGRICULTURAL EDUCATION

During the first two years of this course students will take the regular general course in Agriculture.

##### *Junior Year*

	FALL	WINTER	SPRING
English 331, 332, 333.....	3	3	3
Teaching Process (Ed. 141).....	4	..	..
Principles of Secondary Education (Ed. 143).....	..	4	..
Psychology of Teaching.....	..	..	4

##### *Senior Year*

Vocational Agricultural Education 330.....	..	..	3
Special Methods and Practice Teaching.....	..	..	12

Electives in the junior and senior years to include not less than eight of the following subjects:

- Agricultural Economics (331-332-531-521).
- Agricultural Engineering (322, 442, 331).
- Animal Husbandry (331, 351, 352, 450).
- Agronomy (331-332-333).
- Bacteriology (351).
- Economic Entomology (252).
- Farm Management (Agr. Econ. 431, 432).
- Horticulture (331, 437).

Veterinary Science 331 (332).

Plant Pathology (352, 442).

Soil Fertility (Agr. 345, 346).

Additional electives may be chosen in any department in the College of Agriculture, or in Political Economy, Sociology, History, English, Languages, or Sciences.

## DEPARTMENTAL STATEMENTS

### SYMBOLS

The courses are numbered in accordance with the system previously described.

### CREDIT HOURS

The number of credit hours allowed in each course is identical with the number of hours of lecture or recitation hours a week through the term; in laboratory, shop, or field work two or three hours is considered as equivalent to one hour of lecture or recitation.

*Requirements for a Major in Education:* forty-eight credit hours, including Psychology 140 and Education 140, 141 or 143, and 240.

Psychology 140 should be taken as a preparation for all other courses. Students preparing to teach should complete, in addition, Psychology 142, 230, or 245, and Education 230. No student shall be recommended for a position in high school who has not completed Psychology 245, or Education 143. No student shall be recommended for a supervisory position who has not completed Education 242, 345, and 346.

### EDUCATIONAL PSYCHOLOGY

PROFESSOR A. M. JORDAN, PROFESSOR JEWELL

Beside the courses in Psychology appearing below, students are offered other courses in Psychology in the College of Arts and Sciences.

142. EDUCATIONAL PSYCHOLOGY.—A consideration of the following topics of vital importance to the teacher: sources of interest, instincts, habits, moral training, memory, thinking, attention, imagination, and "transfer of training." Prerequisite: Psychology 140 or 144. Fall. JORDAN.

143. EXPERIMENTAL EDUCATIONAL PSYCHOLOGY.—The experimental study of the learning process both motor and ideational, memory, imagery, apperception, and the transfer of training. Emphasis is placed on correct laboratory procedure as a preparation for mental testing. Prerequisite: Psychology 140 or 144. Winter. JORDAN.

240. GENETIC PSYCHOLOGY.—An intensive study of the development of the mind from childhood to adolescence, with a con-

sideration of the arguments for and against the recapitulation theory. A careful interpretation of both heredity and environmental influences in their bearing upon education in the home and in the school. Prerequisite: Psychology 140 or 144. Spring. (Not given in 1922-23.) JEWELL.

\*234. *PSYCHOLOGY OF ELEMENTARY SCHOOL SUBJECTS*.—The psychological processes involved in the learning of reading, writing, arithmetic, history, and geography. The laws of habit formation applied in arranging the material. Prerequisite: Psychology 140 or 144. Spring. JORDAN.

242. *PSYCHOLOGY OF TEACHING*.—Especially for students in the various Smith-Hughes courses, dealing with the topics usually studied in General Psychology, but always with reference to the learning process. Very practical, and the applications of the laws of psychology to teaching will be stressed. Fall. JEWELL.

\*245. *PSYCHOLOGY OF ADOLESCENCE*.—The important physical, mental, and moral changes natural to adolescence, of special interest to all who have to deal with boys and girls of high school age. Attention given to laying the foundation for the pedagogy of secondary instruction. Prerequisite: Psychology 140 or 144. (Given in alternate years. Not given in 1922-23.) JEWELL.

### *METHODS AND MANAGMENT*

PROFESSOR CADE, PROFESSOR MARINONI, PROFESSOR PALMER, PROFESSOR REINOEHL, ASSOCIATE PROFESSOR ENSIGN, ASSISTANT PROFESSOR GRAY, ASSISTANT PROFESSOR MARKHAM, MRS. BATEMAN, MISS BLAIR, MISS BUNKER, MISS NELSON, MISS WILSON.

130. *COMMUNITY LIFE AND HISTORY FOR THE PRIMARY GRADES*.—Selection and organization of material, and methods of presentation. Lectures, recitation, reference reading, and observation. Fall. WILSON.

121. *NUMBER AND SCIENCE FOR PRIMARY GRADES*.—Organization of subject matter, and methods of presentation. Recitation, reference reading, and observation. Spring. WILSON.

124 (125) (126). *PUBLIC SCHOOL MUSIC*.—Preparatory to teaching music in the public schools. Two meetings each week are given to sight reading and one to a study of the methods of teaching the subject to children. BATEMAN.

141. *TEACHING PROCESS*.—An introduction to the scientific principles underlying teaching. Aims of the schools, chief factors in the educative process, best methods of study, types of lessons, skillful questioning, lesson plans, health education, prob-

lems in organization and control, newer phases of instruction. Text-book, lectures, and recitations. Offered every term. **REINOEHL.**

139. **ENGLISH FOR PRIMARY GRADES.**—The teaching of literature, reading, composition, spelling, and penmanship. Lectures, recitation, reading, and observation. Winter. **WILSON.**

220. **THE TEACHING OF ENGLISH.**—The aims, methods, and results of teaching English in high school. Written English emphasized. Prerequisites: Education 130, 140, 143, Psychology 140, and English 342, 343. Fall. **BUNKER.**

221. **THE TEACHING OF HISTORY.**—The materials of history and the practical problems of teaching the subject in secondary schools. Prerequisites: Education 141, 140, 143. Psychology 140, and History 151-153. Winter. **BUNKER.**

222. **THE TEACHING OF MATHEMATICS.**—Algebra and Geometry; educational value; position in course; methods of teaching (both American and foreign); order and importance of topics; text-books and literature. Lectures, discussions and reports. Prerequisites: Education 141, 140, 143, Psychology 140, and Mathematics 155-157. Spring. **BLAIR.**

223. **THE TEACHING OF FRENCH.**—The problems that confront the teacher of French in secondary schools; pronunciation; choice and presentation of grammatical material; oral practice; composition; choice of tests; method of presentation. Prerequisites: Education 141, 142, 140, Psychology 140, and French 553. Spring. **MARINONI.**

224. **TEACHER'S COURSE IN SECONDARY SCIENCE.**—History of the sciences in secondary schools, their purpose and aims. Emphasis is placed on the psychological method of presenting material in the various science courses. The project method of teaching the sciences will be included. Prerequisites: At least one year, preferably two, of college science, and Education 143, Psychology 140. Required of students preparing to teach science. Winter. **MARKHAM.**

225. **PRACTICE TEACHING.**—Daily teaching of one period in the Training School in practical application of the principles of instruction. Teachers' meeting one hour a week. (In Home Economics this course is called Education 260-261 and has Home Economics 341 as a prerequisite.) Prerequisites: Psychology 140, and Education 140, 141 or 143. **BLAIR, BUNKER, CADE, ENSIGN, GRAY, MARINONI, MARKHAM, NELSON, PALMER, AND WILSON.**

322. **SPECIAL METHODS IN VOCATIONAL AGRICULTURE.**—Organization and presentation of subject matter according to seasonal sequence in class, laboratory, field, or demonstration exercises, texts, references, and illustrative materials, together with index-



ing of the same for ready reference; equipment and arrangement of class rooms and shop. A critical study of the project, the most important feature. Scope, kind, supervision, records, and duration of the project. Several required trips to near-by Smith-Hughes schools. This course will be combined with practice teaching for Smith-Hughes students. Winter and Spring. ENSIGN.

341. HOME ECONOMICS METHODS.—Methods for teaching foods and clothing. Discussion of the development of the home economics movement, courses of study, current text books, the method of demonstration. Prerequisites: Home Economics 331-333, and 234-236; Education 143, 141, and 140. PALMER.

\*527. STATISTICAL METHODS IN EDUCATION.—A practical study of the scientific methods of compiling, organizing, and interpreting all kinds of educational data. The graphic representation of data emphasized with special attention given to the actual needs of teachers and superintendents taking the course. Spring. REINOEHL.

### PHYSICAL EDUCATION

COACH McLAREN

These courses have not been prepared for the general student body, but for players and for those whose business or pleasure it may be to instruct players or teams, the idea being to train men to fill the demand for athletic coaches in the institutions of learning throughout the state. The work will consist partly of lectures and partly of demonstrations.

The courses are open to all men in the University except freshmen.

215. BASKET BALL.—Methods of training and developing a team, selection of men, floor work, shooting, the various positions, and offensive and defensive methods used in scientific basket ball. Winter. McLAREN.

216. TRACK.—Method of developing and teaching individuals and team throughout the season, with proportionate attention to the form and methods used in all events on the inter-collegiate program. The management of an athletic meet and the rules of competition. Spring. McLAREN.

221. FOOTBALL.—Two hours per week. Fundamentals, training, protection from injuries, construction and use of apparatus, how to play the various positions, football practice, systems of signals, intelligent planning of season, field generalship, system of offense and defense as used by the leading teams of the country, various general hints concerning the handling of men and selection of material, rules and ethics of sportmanship. Winter. McLAREN.

*PRINCIPLES OF EDUCATION*

PROFESSOR JEWELL, PROFESSOR HOTZ, PROFESSOR REINOEHL,  
ASSOCIATE PROFESSOR ENSIGN

140. HISTORY OF EDUCATION.—Educational tendencies rather than men. Stress laid upon the connection between educational theory and actual school work in its historical development. Offered every term. JEWELL.

142. PRINCIPLES OF ELEMENTARY EDUCATION.—Principles of education as they affect the work of the elementary school; course of study; selection and organization of subject matter; educational method, including problems and projects in teaching; adjusting work to meet individual differences; grading and promotion of pupils. Prerequisite: 141 and 140. Offered every term. HOTZ.

243. PRINCIPLES OF SECONDARY EDUCATION.—Aims and functions of secondary education in a democracy; the high school pupil; individual differences; the curriculum and the selection of subject matter; methods of teaching; cardinal principles of organization and management in so far as they affect the work of the teacher. Prerequisite: 141, 140, and Psychology 140. Offered every term. HOTZ.

\*220. PHILOSOPHY OF EDUCATION.—Education considered from the standpoint of: (1) biology, (2) neurology, (3) psychology, (4) anthropology, and (5) sociology. Instinct, heredity, habit, culture-epochs, individual differences, imitation, suggestion, training and memory, imagination, emotions, will, senses, motor activities and moral nature, formal discipline, educational values, and social education. Prerequisites: Psychology 140, or 144, and Education 140, or 141. Winter. JEWELL.

\*241. COMPARATIVE SCHOOL SYSTEMS.—The outstanding features of the school systems of France, Germany, England, Denmark, Switzerland, and the United States. Planned for those interested in the working out of the curriculum and a better supervision of the schools. The changes in education that the Great War has brought to England and Germany, and its probable effect on the United States, are largely emphasized. Text-book, lectures, and references. Prerequisite: 140. Spring. JEWELL.

411. SEMINAR IN AGRICULTURAL EDUCATION.—A review of current literature bearing on Vocational Education; round table discussions on special topics relating to the work in Arkansas and other states. For Seniors and Graduate Students majoring in Vocational work. ENSIGN.

\*526. CURRICULUM PROBLEMS.—A study of both the supervisory and the administrative aspects of curriculum making. It deals with the selection of aims, methods, teaching materials,

and standards of achievement in school subjects. Vitalization of instruction by extending supervision through the course of study. Special attention given to current work in the application of scientific methods to the development and organization of content-materials. References, lectures, and discussions. Prerequisite: 141 or 143. Winter. REINOEHL.

\*537. PROBLEMS IN SECONDARY EDUCATION.—For prospective high school principals and supervisors, and closely related to 536; classification and homogeneous grouping of pupils; making of daily schedules; measuring results of teaching, and teacher rating; records and reports; methods of securing publicity. Prerequisite: 536 and 242. Winter. HOTZ.

538. SEMINAR IN SECONDARY EDUCATION.—A research course in special problems in secondary education. Administration, financial support, etc. Prerequisite: 536 and 242. Hotz.

### *SCHOOL ADMINISTRATION*

PROFESSORS CADE, HOTZ, JEWELL, JORDAN, REINOEHL

134. SCHOOL HYGIENE.—Problems of school hygiene, including heating, lighting, ventilating, school diseases, medical inspection of schools, and hygiene of various school activities. Lectures, and references. Not offered in 1922-23. JEWELL.

234. CONDUCT OF THE RECITATION IN THE HIGH SCHOOL.—(a). Directed Study—How we think; the training of thought; technique of supervised study.

(b). The Recitation Period—types and methods of recitation; types of questions and answers.

The class is in constant touch with the demonstration school and frequently observes classes. Prerequisite: 243. Winter. Hotz.

\*242. EDUCATIONAL TESTS AND MEASUREMENTS.—The critical study of scientific methods employed in measuring school room instruction. Special attention given the consideration of standard tests and scales for the measuring of educational attainments, together with the technique of applying these to educational products. Practice given in applying tests in oral and silent reading; spelling, penmanship, comprehension, arithmetic, English composition, and algebra. Prerequisites: Psychology 140, and Education 140, or 141. Spring. JORDAN.

\*344 STATE AND COUNTY SCHOOL ADMINISTRATION.—The educational organization of the nation, state, county, district; rural school problems; buildings and equipment; school records, reports; text-books and the course of study; school officers; the teaching staff; the elementary school pupil; budgets and financial problems; inspection and standardization; measuring, interpreting, presenting results to the public. Prerequisite: 142, or

243, or in the case of teachers of wide experience, the permission of the instructor. References, discussions, reports. Fall. REINOEHL.

\*345. VILLAGE AND CITY SCHOOL ADMINISTRATION.—Evolution of city districts; the school plant, its care and equipment; administrative organizations; boards of education; the city superintendent; ward and village principals; teachers; grade pupils; classification and promotion; curriculum problems; student activities, health administration; school accounting, budgets, reports; selling the schools to the public. Prerequisite, 142 or 243, or, in case of teachers of wide experience, the permission of the instructor. References, discussions, reports. Winter. REINOEHL.

\*346. SCHOOL SUPERVISION.—The supervisory aspects of school administration. Development of supervision; present status; methods and plans; class schedules; organizing teaching materials; criticism of instruction; supervised study; supervisory devices; economy and effectiveness in teaching; measuring results. Prerequisite: 142 or 243, or, in case of teachers or wide experience, the permission of the instructor. References, discussions, reports. Spring. REINOEHL.

\*536. HIGH SCHOOL ADMINISTRATION.—Purpose and legal status of the high school; relation to elementary and to higher education; proposed plans for reorganization; the high school principal and his functions; selection, supervision, and promotion of teachers; the high school population; curricula and courses of study. Prerequisite: 243. Fall. HOTZ.

\*580. EDUCATIONAL PROBLEMS.—A research course pertaining to problems of instruction, administration, and supervision. Open to seniors and graduate students. Research problems may be carried over two or more terms and a maximum of eight term hours credit may be made in this course. Prerequisite: Education 240. CADE.

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## COLLEGE OF ENGINEERING

The purpose of the courses in this college is to prepare young men for the profession of engineering. The value of the training acquired in a university course is recognized by railway officials, manufacturers, municipal, state, and federal authorities. The demand in industrial and engineering fields throughout the country is for college graduates.

The graduates of the College of Engineering of the University

of Arkansas are scattered over the entire world, occupying positions of trust in foreign lands, in the service of the United States government, in large manufactories, and in state and municipal service, or are building for themselves reputations as professional engineers.

ADMISSION

For a detailed statement of the entrance requirements and a description of the subjects accepted for entrance, see previous pages.

COURSES OF STUDY

The College of Engineering offers through its various departments four year courses leading to the degrees of *Bachelor of Chemical Engineering* (B. Ch. E.), *Bachelor of Civil Engineering* (B. C. E.), *Bachelor of Civil Engineering in Highways* (B. C. E. in Highways), *Bachelor of Electrical Engineering* (B. E. E.), and *Bachelor of Mechanical Engineering* (B. M. E.); graduate and professional courses leading to the degrees of *Chemical Engineer* (Ch. E.), *Civil Engineer* (C. E.), *Electrical Engineer* (E. E.), and *Mechanical Engineer* (M. E.); and special two-year courses leading to a certificate.

Candidates for the bachelor's degree in engineering must meet the entrance, residence, and registration requirements, and must complete satisfactorily two hundred sixteen term hours as outlined in the following courses of study

Elective courses will not be given unless as many as five students, who have completed the required undergraduate course, register for them.

All senior engineering students, accompanied by instructors, are required, during the spring term, to make a visit of inspection to power plants, manufacturing plants, and noted engineering works. All engineering students will be required to spend one week in actual field practice in surveying during the junior year.

FRESHMAN AND SOPHOMORE YEARS FOR ALL  
ENGINEERING STUDENTS

Freshman Year

Course	CREDIT HOURS		
	FALL	WINTER	SPRING
Physics 147 (148) (149).....	4	4	4
English 131 (132) (133).....	3	3	3
Mathematics 156 .....	..	5	..
Mathematics 157 .....	5	..	..
Mathematics 128 .....	..	..	2
Mathematics 139 .....	..	..	3
Drawing 121 (122) (123).....	2	2	2
Mechanic Arts 121 (122) (123) .....	2	2	2
Military Art 111 (112) (113).....	1	1	1
	17	17	17



*Sophomore Year*

Course	CREDIT HOURS		
	FALL	WINTER	SPRING
Mathematics 256 .....	5	—	—
Mathematics 251 (252) .....	—	5	5
Chemistry 257 (258) (259) .....	5	5	5
Drawing 221 (222) (223) .....	2	2	2
Civil Engineering 251 .....	5	—	or 5
Experimental Engineering 225 .....	2	or 2	—
Electrical Engineering 231 (221) .....	—	5	or 5
Military Art 211 (212) (213) .....	1	1	1
Heat Power Engineering 231 .....	3	or 3	—
	18	18	18

## REQUIREMENTS FOR DEGREES

*CHEMICAL ENGINEERING**Junior Year*

Course			
Chemistry 354 (355) (359) .....	5	5	5
Chemistry 254, 255 .....	5	5	—
Heat Power Engineering 341 (342) (343) .....	4	4	4
*Elective .....	4	4	9
	18	18	18

*Senior Year*

Course			
Chemistry 434, 435 (436) .....	3	3	3
Chemistry (451) (452) 453 .....	5	5	5
Electrical Engineering 331, 332 .....	3	3	3
Electrical Engineering 321, 322 .....	2	2	2
*Elective .....	5	5	5
	18	18	18

*CIVIL ENGINEERING**Junior Year*

Course			
H. P. Engineering 341 (342) (343) .....	4	4	4
Civil Engineering 342 .....	—	4	—
Civil Engineering 340, 312 .....	—	1	4
Civil Engineering 351 .....	5	—	—
Civil Engineering 343 .....	—	—	4
Civil Engineering 331 (332) (333) .....	3	3	3
Geology 341 .....	4	—	—
Civil Engineering 335 .....	—	3	—
†Elective .....	2	3	3
	18	18	18

*Senior Year*

Course			
Civil Engineering 451, 431 .....	5	3	—
Civil Engineering 443 .....	—	—	4
Civil Engineering 435 .....	—	3	—

\*All electives must be chosen with the consent of the head of the Department of Chemistry and the Dean of the College of Engineering. Of these electives 12 hours must be chosen from other courses in chemistry and at least 9 hours in English or a foreign language.

†To be chosen with the advice and consent of the head of the department.

Course	CREDIT HOURS		
	FALL	WINTER	SPRING
Civil Engineering 436, 437, 428 .....	3	3	2
Civil Engineering 433 .....	..	3	..
Civil Engineering 432 .....	3	..	..
Civil Engineering 440 .....	4	..	..
Civil Engineering 438 .....	..	..	3
Civil Engineering 434 .....	..	..	3
Civil Engineering 439 .....	..	..	3
Civil Engineering 530 .....	..	3	..
*Elective .....	3	3	3
	18	18	18

### HIGHWAY ENGINEERING

#### Junior Year

Same as Junior Civil Engineering.

#### Senior Year

Course			
Civil Engineering 451, 431 .....	5	3	..
Civil Engineering 425 .....	..	2	..
Civil Engineering 436, 437, 428 .....	3	3	2
Civil Engineering 532 .....	..	..	3
Civil Engineering 433 .....	..	3	..
Civil Engineering 440 .....	4	..	..
Chemistry (441) (442) (443) .....	4	4	4
Civil Engineering 438 .....	..	..	3
Civil Engineering 434 .....	..	..	3
Civil Engineering 422 .....	2	..	..
Civil Engineering 430 .....	..	3	..
Civil Engineering 439 .....	..	..	3
	18	18	18

### ELECTRICAL ENGINEERING

#### Junior Year

Course			
Heat Power Engineering 341 (342) (343) .....	4	4	4
Electrical Engineering 331 (332) 333 .....	3	3	3
Electrical Engineering 321 (322) 323 .....	2	2	2
Electrical Engineering 324 (325) (326) .....	2	2	2
Heat Power Engineering 331 (332) (333) .....	3	3	3
*Elective .....	4	4	4
	18	18	18

#### Suggested Electives:

Experimental Engineering 321 (322) (323) .....	2	2	2
English 331 (332) (333) .....	3	3	3

\*To be chosen with the advice and consent of the head of the department.

Course	CREDIT HOURS		
	FALL	WINTER	SPRING
Military Art 521 (522) (523).....	2	2	2
Physics 531 (532) .....	3	3	1
Chemistry 241 .....	4	..	4
French 141 (142) (143).....	4	4	4
Spanish (141) (142) (143) .....	4	4	4
Electrical Engineering 334.....	..	..	3

*Senior Year*

Electrical Engineering 431 (432) (433).....	3	3	3
Electrical Engineering 421 (422) (423).....	2	2	2
Electrical Engineering 424 (425) (426).....	2	2	2
Heat Power Engineering 451 .....	5	..	..
Electrical Engineering 417 (418) (419) .....	1	1	1
Electrical Engineering 451 .....	..	5	..
Civil Engineering 434 .....	..	..	3
Economics 433 .....	..	..	3
*Electives .....	5	5	4
	18	18	18

*Suggested Electives:*

Electrical Engineering 441, 442, 443.....	4	4	4
Electrical Engineering 434, 435 .....	3	..	3
Military Art 531 (532) (533).....	3	3	3

*MECHANICAL ENGINEERING**Junior Year*

Course			
Heat Power Engineering 341 (342) (343).....	4	4	4
Electrical Engineering 331 (332).....	3	3	..
Electrical Engineering 321 (322).....	2	2	..
Experimental Engineering 321 (322) (323).....	2	2	2
Civil Engineering 343.....	..	..	4
Drawing 341 .....	4	..	..
Heat Power Engineering 344 (345).....	..	4	4
Heat Power Engineering 331 (332) (333).....	3	3	3
*Elective .....	..	..	1
	18	18	18

*Senior Year*

Electrical Engineering 451 .....	..	5	..
Heat Power Engineering 451.....	5	..	..
Economics 433 .....	..	..	3
Heat Power Engineering 441 .....	4	..	..
Heat Power Engineering 442.....	..	4	..
Heat Power Engineering 431.....	3	..	..
Heat Power Engineering 443 (444) .....	..	4	4
Civil Engineering 434 .....	..	..	3
Mechanic Arts 435 .....	3	..	..
Experimental Engineering 423 .....	..	..	2
Heat Power Engineering 421 .....	..	2	..
Thesis .....	..	..	3
*Electives .....	3	3	3
	18	18	18

\*To be chosen with the advice and consent of the head of the department.

## REQUIREMENTS FOR THE GRADUATE AND PROFESSIONAL DEGREES IN ENGINEERING

The graduate degrees of *Chemical Engineer*, *Civil Engineer*, *Electrical Engineer*, and *Mechanical Engineer* are granted to students who have completed the required undergraduate course and, in addition, at least one year of graduate work in residence. This graduate work must include one major subject, based on the undergraduate course pursued, and two minor subjects, one or both of which must be closely related to the major subject. The candidate must complete not less than forty-five term credit hours in approved courses and must submit an acceptable thesis in his major subject presenting the results of original research.

The professional degrees of *Chemical Engineer*, *Civil Engineer*, *Electrical Engineer*, and *Mechanical Engineer* are also conferred upon graduates of the University of Arkansas who have been in successful practice of their profession for at least three years, two of which must have been done after receiving the bachelor's degree. The candidate must have been in responsible charge of work as principal or assistant for at least one year. In addition to this he must present an acceptable thesis giving the results of original research.

The candidate must submit, in writing, to the Committee on Scholarship of the College of Engineering a statement of his professional record, the names of at least three references, and the subject of his thesis, not later than January 1 of the college year in which the degree is sought. The completed thesis must be in the hands of the Committee on Scholarship not later than May 20, of the same year. A fee of \$2.00 is required, to cover cost of binding the library copy.

### DEPARTMENTAL STATEMENTS SENIOR THESIS

THESIS.—Each senior or graduate student, candidate for a degree, is required to submit the subject of his thesis not later than December 15, and the completed thesis not later than May 10 to a committee, consisting of the candidate's major professor and two other members appointed by the dean, for its criticism and approval. All these must be neatly typewritten on one side of plain white paper, eight by ten inches in size, leaving a one-inch margin. When drawings or diagrams are used they should be made to conform to these dimensions or some multiple of them. The first page of the thesis should contain the title and the following statement: "Thesis submitted by..... to the faculty of the University of Arkansas in partial fulfillment of the requirements for the degree of....." and the date. Theses submitted for bachelor degrees must be at least 2,500 words in length.

**CHEMICAL ENGINEERING**

PROFESSOR HALE, ASSOCIATE PROFESSOR WERTHEIM, ASSISTANT  
PROFESSOR HUMPHREYS, DR. PORTER

*The requirements for a degree* are outlined on previous pages.  
The courses in chemistry for chemical engineers are described under the Department of Chemistry.

**CIVIL ENGINEERING**

PROFESSOR STOCKER, ASSISTANT PROFESSOR SPENCER, MR. MULLIN

*The requirements for a degree* are outlined on previous pages.  
The courses in civil engineering include theoretical instruction accompanied by illustrations and as much of engineering practice as possible. Much time is devoted to practice in the field, drafting room, and laboratory, this work being carried on parallel with the class work. Each year a party of engineering students goes into camp for one week for practice in surveying and railway location. The courses will give the student a knowledge of fundamental principles that will enable him to enter intelligently upon professional practice.

**HIGHWAY ENGINEERING**

In recent years many problems have arisen in connection with the construction and maintenance of highways, creating a demand for men who have been trained for this particular branch of engineering. The course in highway engineering has been arranged to aid in training engineers for this work.

A well equipped laboratory has been provided for making all the standard tests in accordance with the practice of the United State Office of Public Roads.

A laboratory fee of \$2.00 is charged for the following courses in Civil Engineering: 213, 251, 312, 340, 351, 430, 439, 440.

213. **LEVELING AND FARM DRAINAGE.**—Leveling, land surveying, and farm draining. For students in agriculture. Lectures and recitations one hour a week the first part, and field practice three hours the last part, of the term. Spring. STOCKER.

251. **ELEMENTARY SURVEYING.**—General surveying to meet the needs of all engineering students; the care and use of tape, level, and transit; exercises in the field, including land surveying, leveling, public land surveys, and the adjustment of instruments. Lectures and recitations three hours, field practice six hours. Prerequisite: Mathematics 156. Fall and spring. STOCKER AND MULLIN.

312, 340. **RAILROAD SURVEYING.**—Problems and practice in the location of simple, vertical, and transition curves; turnouts, measurements of cuts and fills; setting stone stakes and making computations for volumes. Prerequisites: 251, 351. Winter and spring. SPENCER.



342. RAILROAD SURVEYING.—Preliminary surveys and location; simple, vertical, and transition curves; turnouts and cross-overs; estimates of earthwork and materials of construction. Prerequisites: 251, 351. Winter. SPENCER.

430. RAILWAY ECONOMICS.—The economics of railway location and maintenance. Prerequisites: 342, 313. Winter. SPENCER.

331. DRAWING.—Computations and drawing of topographical maps from actual surveys. Drawing practice nine hours. Prerequisite: Drawing 221-223. Fall. SPENCER.

332 (333). DRAWING.—Graphic statics and detail drawing of simple wood and steel roof trusses. Drawing practice nine hours. Prerequisite: Drawing 221-223. Winter and spring. SPENCER.

343. HYDRAULICS.—The theory of hydraulics; principles of hydrostatic and hydrodynamic pressures; stream gauging; water measuring devices. Lectures and recitations three hours, laboratory or computation work three hours. Prerequisite: H. P. E. 341-343. Spring. MULLIN.

335. HIGHWAYS.—The location, design, construction, and maintenance of earth, gravel, broken stone, concrete, and bituminous macadam roads. Prerequisites: 351, 251. Winter. STOCKER.

351. SURVEYING.—The use, care, and adjustment of level, transit, plane table, and sextant; methods employed in topographic, land, city, mine, and hydrographic surveying; map making and calculations from field notes. Lectures and recitations three hours, field practice six hours. Prerequisite: 251. Fall. STOCKER.

436 (437). MASONRY AND REINFORCED CONCRETE.—Stone and brick masonry; plain and reinforced concrete; deep foundations; dams, retaining walls, reinforced concrete structures. Prerequisites: H. P. E. 341-343. Fall and winter. SPENCER.

428. CONCRETE DESIGN.—Design of reinforced concrete structures. Drawing practice six hours. Prerequisites: 440, 436, 437, H. P. E. 341-343. Spring. SPENCER.

430. HIGHWAY ENGINEERING LABORATORY.—Tests on gravel and broken stone to determine hardness, toughness, cementing power, and resistance to abrasion; rattler tests and absorption tests on paving brick; tests on sand and clay; inspection of and tests on bituminous materials. Laboratory six hours. Prerequisite: 335. Winter. SPENCER.

440. ENGINEERING LABORATORY.—Tests to determine strength and other properties of materials of construction; tensile and crushing tests on brick and stone; standard tests on natural and Portland cements; tests to determine the effect of graded and

ungraded aggregates on concrete. One hour of recitation and six hours of laboratory. Prerequisite: H. P. E. 341-343. Fall. SPENCER.

439. ADVANCED SURVEYING.—Problems in triangulation, topographic surveying, precise leveling, and practical astronomy. Prerequisites: 342, 313, 312, 330. Spring. SPENCER.

422. HIGHWAYS.—Proper design, construction, and maintenance of city streets and pavements. Road laws, taxes, bond issues and assessments. Prerequisites: 335, 351. Fall. STOCKER.

451, 431. ROOF AND BRIDGE STRESSES.—Computation of stresses in roofs and bridges, chiefly by analytical methods. Special attention given to the subject of train loads for railroad bridges. Prerequisite: H. P. E. 341-343. Fall and winter. STOCKER.

435. BRIDGE DESIGN.—Complete design with detailed drawings and estimates of weight and cost of a plate girder bridge. Prerequisites: 451, H. P. E. 341-343. Winter. STOCKER.

443. BRIDGE DESIGN.—Complete design with detailed drawings and estimates of weight and cost of a riveted or pin connected railroad bridge. Prerequisites: 451-431, H. P. E. 341-343. Spring. STOCKER.

432. SEWERAGE.—Municipal sewage disposal. Computations of quantities of sanitary and storm sewage, design of separate and combined systems of sewers, design of sewage purification works, and the ultimate disposal of sludge and effluents. Financial, legal, and pathological considerations of sanitation. Prerequisite: 343. Fall. MULLIN.

433. WATERWORKS.—Public water supplies. Examination of sources of supply, computations of quantities required, design of reservoirs, purification plants, and distributing systems. Financial, legal, and pathological considerations of municipal water supply. Prerequisite: 343. Winter. MULLIN.

425. HIGHWAY BRIDGE DESIGN.—Problems in the design of highway bridges, determination of waterways, construction and maintenance of highway bridges and culverts. Drawing and computation six hours. Prerequisite: 451. Winter. STOCKER.

532. HIGHWAY BRIDGE DESIGN.—A continuation of 425. Spring. STOCKER.

434. ENGINEERING CONTRACTS AND SPECIFICATIONS.—Legal aspects of contract and specification forms, and instruments for advertisements, proposals, contracts, and bonds; specifications for various kinds of work and materials. Spring. STOCKER.

438. THESIS.—(See SENIOR THESIS on previous pages.) STOCKER.

530. LAND DRAINAGE AND IRRIGATION.—Rainfall and run-off, the survey of drainage basins, the computation of quantities of run-off from drainage basins; the design, location, and construction of drainage courses; the financial and legal considerations of land drainage; benefits derived from land drainage. The sources of water supply for irrigation; the design, location, and construction of irrigation works; the application and duty of the water; the financial, legal, and beneficial consideration of irrigation. 343, 351. Winter. MULLIN.

### ELECTRICAL ENGINEERING

PROFESSOR GLADSON, PROFESSOR STELZNER, MR. TEAGUE

*The requirements for a degree* are outlined on a previous page. The courses in this department seek to combine general and technical subjects in such proportions as to furnish a good foundation for the profession of electrical engineering. Sufficient theory is taught in the class-room and illustrated by laboratory experiments to give the student a knowledge of the underlying principles. Shop experience with manufacturing companies to give the student specific practical training is desirable. Such training should be obtained during vacations and after graduation.

A laboratory fee of \$2.00 is charged for the following courses in Electrical Engineering: 221, 321, 322, 323, 421, 422, 423. (See 417).

231 ELEMENTS OF ELECTRICAL ENGINEERING.—Introductory. Recitations and demonstration on electric and magnetic circuits and machines. Measuring instruments, their use and calibration. Prerequisite: Physics 142. Spring. STELZNER.

221. ELECTRICAL ENGINEERING LABORATORY.—To accompany 231. Laboratory four hours. Prerequisite: Physics 142. Spring. TEAGUE.

331 (332) 333. DYNAMO ELECTRIC MACHINERY.—Direct and alternating current machinery with their general applications. Prerequisite: 231. STELZNER.

321 (322) 323. ELECTRICAL ENGINEERING LABORATORY.—Electrical and magnetic measurements, use and calibration of instruments; testing of direct and alternating current machinery. Four hours a week. To accompany 331-333. STELZNER.

324 (325) (326). ELECTRICAL ENGINEERING DESIGN.—Problems in direct current machinery, calculations and drawing. Four hours. Prerequisite: 231. TEAGUE.

334. ILLUMINATING ENGINEERING.—Electric light wiring and different methods of artificial illumination; sources, intensity and distribution of light; physiological and hygienic problems; direct and indirect lighting; reflecting surfaces; illumination and photometric calculations. Prerequisite: 231. Spring STELZNER.

431 (432) (433). ALTERNATING CURRENTS AND ALTERNATING CURRENT MACHINERY.—Lectures, recitations and problems on alternating current circuits and machinery. Prerequisite: 333. STELZNER.

421 (422) (423). ELECTRICAL ENGINEERING LABORATORY.—Laboratory exercises to accompany 431-433. Four hours. STELZNER.

424 (425) (426) ELECTRICAL ENGINEERING DESIGN.—Problems in alternating current machinery, calculations and drawing four hours. To accompany 431-433. TEAGUE.

441 HYDRO-ELECTRIC ENGINEERING.—Methods of investigating power possibilities of flowing water, collecting data, selecting power sites, designing dams, power house, transmission lines, and machinery. Prerequisite: 231. Fall. GLADSON.

434. TELEPHONY.—The principal systems of telephony in practical use. Prerequisite: 231. Fall. TEAGUE.

451. ELECTRICAL EQUIPMENT OF POWER PLANTS.—Selection of electrical machinery for power stations; station construction, operation, and management. Prerequisite: 333. Winter. GLADSON.

435. TELEGRAPHY.—The principal system of wire and wireless telegraphy in practical use. Prerequisite: 231. Spring. TEAGUE.

442. ELECTRICAL RAILWAYS.—Application of electricity to the propulsion of street cars and railway trains. Selection, equipment, and study of the various systems of electric traction. Lectures, recitations, and problems. Prerequisite: 333. Winter. STELZNER.

437. ELECTRICAL ENGINEERING SEMINAR.—Students who attend and take part in at least three-fourths of the meetings of the University of Arkansas Branch of the American Institute of Electrical Engineers during their Junior and Senior years, and who prepare and present an acceptable original paper on some engineering subject, will be allowed three term hours of credit.

417 (418) (419). THESIS.—(See SENIOR THESIS on previous pages.) GLADSON.

443. ELECTRIC TRANSMISSION AND DISTRIBUTION OF POWER.—Modern methods of transmission and distribution of electric power. Prerequisite: 431. Spring. GLADSON.

### MECHANICAL ENGINEERING

There are two departments in Mechanical Engineering: Experimental Engineering and Drawing; and Heat Power Engineering and Mechanical Arts.

*The requirements for a degree* are outlined on a previous page.

Mechanical Engineers are in demand in various lines of engineering work, such as consulting engineering; power plant de-



signing, constructing, and operating; designing, constructing, erecting, operating, and testing all kinds of machinery; manufacturing; engineering salesmanship; heating and ventilating engineering; and efficiency engineering.

The course in mechanical engineering is designed to give the student a broad foundation in the subjects that are of the greatest importance in his work; a technical education in his chosen field made practical by shop and laboratory courses, and, in electives, a certain amount of specialization and cultural development. It is believed that such a course will enable the student to be of immediate value to his employer and that it will insure certain advancement in his profession.

A laboratory fee of \$2.00 will be charged in the following courses: in Experimental Engineering, 225, 321, 322, 323, 422, 423; in Trade Courses, 41, 42, 43; in Mechanic Arts, 121, 122, 123, 111, 112, 113, 124, 125, 126, 435.

#### EXPERIMENTAL ENGINEERING AND DRAWING

PROFESSOR WILSON, MR. MULLIN

225. MECHANICAL LABORATORY.—Elementary laboratory work to acquaint the student with the use and operation of power plant equipment. One lecture and three hours laboratory. Prerequisite: Physics 140. Winter or spring. WILSON.

321 (322) (323). MECHANICAL LABORATORY.—The calibration of engineering instruments, such as indicators, planimeters, nozzles and meters; valve setting, efficiency tests of steam engines and boilers. Laboratory four hours. Must be preceded or accompanied by Heat Power Engineering 331-333. Prerequisites: Exp. Eng. 225. WILSON.

423. MECHANICAL LABORATORY.—Properties of engineering materials investigated experimentally. Complete test of some power or pumping plant. Special investigations. Four hours of laboratory. Prerequisites: Heat Power 342, Exp. Eng. 225. Spring. WILSON.

439. THESIS. (See SENIOR THESIS on previous pages.) WILSON.

#### DRAWING

121 (122) (123). MECHANICAL DRAWING.—Instruction in the selection, use and care of instruments, lettering, sketching, and working drawings. The latter half of this course is devoted to elementary Descriptive Geometry. The problems are assigned and worked out in the drawing room. Six hours of drawing. Prerequisite: None. WILSON AND MULLIN.

221 (222) (223). MECHANICAL DRAWING.—Elementary course, including lettering, technical sketching and machine parts, detail and assembly drawing, tracing and blue-printing, perspective and isometric drawing, topographical drawing and empirical machine



design. Drawing practice six hours. Prerequisite: Drawing 123. WILSON.

224 (225) (226). ARCHITECTURAL DRAWING.—Plans and specifications, details, bills of material, perspective drawing, orders of architecture. Drawing practice six hours. WILSON.

227 (228). LETTERING.—Freehand lettering, titles for maps and drawings, graphs. Drawing practice six hours. Winter and spring. MULLIN.

341. KINEMATICS.—Investigation of the means by which motion is transmitted in machines and of the principles underlying the design of gears, cams, and similar mechanical devices. Two recitations and six hours of drawing. Prerequisite: Drawing 223. Fall. WILSON.

#### HEAT POWER ENGINEERING AND MECHANIC ARTS

PROFESSOR BAENDER, MR. JONES, MR. DINWIDDIE, MR. THOMPSON,  
MR. STILLWELL

#### HEAT POWER ENGINEERING

341 (342) (343). THEORETICAL MECHANICS.—Statistics and dynamics, including a mathematical discussion of inertia, energy, and similar topics. The materials of construction, including the mathematical development of the formulæ for calculating the strength of beams, columns, and shafting, with numerous practical problems illustrating the theory involved. Prerequisite: Mathematics 251-252. BAENDER.

344 (345). MACHINE DESIGN.—The kinematics of machinery, gear wheels, and link motion. Designs made of complete lathes, punches, and similar machines. Complete working drawings, including the application of theory to practical problems. Must be preceded or accompanied by course 341 (342) (343). Lectures and recitations two hours, drawing six hours. Prerequisite: 341-343 Shop. Winter and spring. BAENDER.

331 (332) (333). HEAT POWER ENGINEERING.—The thermodynamic theory underlying heat engines and its application to the steam and gas engines; valves and valve gears analyzed by the valve diagrams. Boilers, superheaters, and the properties of saturated and superheated steam. Prerequisites: Physics 241-243, Mathematics 251-252. BAENDER.

451. MECHANICAL EQUIPMENT OF POWER PLANTS.—The selection of machinery for power plants, coal handling, and ash-handling. The characteristics of operation of the various types of prime movers and auxiliaries under variable loads so that equipment best adapted for the problems at hand may be selected. Must be preceded by course 331-333. Fall. BAENDER.

452. ENGINE AND BOILER DESIGN.—The mechanics of engines and boilers with problems illustrating the thermo-dynamic theory underlying the design. Must be preceded by course 331-333. BAENDER.

417 (418) (419). THESIS.—(See SENIOR THESIS on previous pages.) BAENDER.

231. HEAT ENGINES.—For second year students. To give general information about power plant equipment. Elementary heat theory introduced. Prerequisite: None. Fall or winter. STILLWELL.

442. GAS ENGINE DESIGN.—The design of modern gas engines especially as applied to the automobile engine. Various types of engines. Prerequisite: 331-333. Winter. BAENDER.

431. REFRIGERATION.—The theory of ice-making machinery. The various types, with particular reference to the theory underlying construction. Prerequisite: 331-333. Fall. BAENDER.

441. INDUSTRIAL ENGINEERING.—A study of markets, capital, labor, materials, processes and organization, and of their influences, separate and combined, in engineering industries. Prerequisite: None. Fall. STILLWELL.

443 (444). HEATING AND VENTILATING.—The various types of heating systems and their proper installation. Prerequisite: 331-333. Winter, spring. STILLWELL.

421. ADVANCED THERMODYNAMICS.—An advanced study of heat engines introducing the application of calculus and differential equations for the solution of problems. Prerequisites: 331 (333). Winter. BAENDER.

### MECHANICS ARTS

121. WOODWORK.—Joinery, use and care of tools, making of patterns and core boxes. Shop practice six hours. Prerequisite: None. Given in any term. DINWIDDIE.

122. FORGING.—Management of fires, drawing, welding, annealing and tempering of tools. Shop practice six hours. Prerequisite: None. Given in any term. THOMPSON.

123. MACHINE SHOP.—Pench work on chipping and filing, turning, thread cutting, planing, and grinding. Shop practice six hours. Prerequisite: None. Given in any term. JONES.

124. CARPENTRY.—Especially for students in Agriculture. Use and care of tools, grinding and sharpening edge tools, setting and filing saws. Commercial methods of handling lumber, construction of modern farm buildings; preparing lists of material, plain roof framing, use of steel square. Shop practice six hours. Given in any term. Prerequisite: None. DINWIDDIE.

125. **FORGE WORK.**—Especially for students of Agriculture. Handling of fires, annealing, drawing, and welding. Special problems are worked out that are most suitable for farm work. Shop practice six hours. Prerequisites: None. Given in any term. THOMPSON.

435. **ADVANCED SHOP.**—Advanced work in either woodwork, forging, or machine shop, or a combination of these. Prerequisites: Shop 121, 122, 123. Fall. JONES, DINWIDDIE AND THOMPSON.

### SHORT COURSE IN ELECTRICAL AND MECHANICAL ENGINEERING

MR. DINWIDDIE, MR. MCKINLEY, MR. KING, MR. IRBY, MR. STARBIRD, MR. JONES, MR. THOMPSON, MR. BARTON

The following course is offered to students who have at least a grammar school education and who desire to prepare themselves better for advancement in the trades, or who desire to become familiar with the care, operation, and repair of some line of machinery. The course is intended to give the student a working knowledge of steam, gas, and electrical machinery, in addition to his shop training.

Upon the satisfactory completion of two years of work, a certificate will be issued.

#### COURSE OF STUDY

##### FIRST YEAR

###### Fall Term

Course	HOURS	
	RECITATION	PRACTICE
(41) Steam Boilers.....	4	3
(44) Elementary Electricity.....	4	3
(11) Drawing.....	..	6
(121) Blacksmithing.....	..	6
(14) Arithmetic.....	4	..
(1) Physics.....	4	2

###### Winter Term

(42) Steam Engines.....	4	3
(45) Direct Current Machinery.....	4	3
(12) Drawing.....	..	6
(122) Woodworking.....	..	6
(17) Arithmetic.....	4	..
(2) Physics.....	4	2

###### Spring Term

(43) Gas Engines.....	4	3
(46) Direct Current Machinery.....	4	3
(13) Drawing.....	..	6
(123) Machine Shop.....	..	6
(15) Geometry.....	4	..
(3) Physics.....	4	2

## SECOND YEAR

*Fall Term*

Course	HOURS	
	RECITATION	PRACTICE
(62) Alternating Currents .....	4	3
(51) Mech. Equip. of Power Plants.....	4	..
(20) Drawing .....	..	6
(7) Algebra .....	4	..
(27) Mechanics .....	4	..

*Winter Term*

(63) Alternating Currents .....	4	3
(52) Elec. Equip. of Power Plants. ....	4	..
(21) Drawing .....	..	6
(8) Algebra .....	4	..
(28) Mechanics .....	4	..

*Spring Term*

(64) Alternating Currents .....	4	3
(53) Steam and Gas Machinery and Laboratory .....	4	4
(22) Drawing .....	..	6
(9) Trigonometry .....	4	..
* Elective .....	4	..

## GENERAL EXTENSION DIVISION

## ADMINISTRATIVE OFFICERS

JOHN C. FUTRALL, M. A. LL. D., *President.*

ARTHUR M. HARDING, M. A., Ph. D., *Director of General Extension.*

HENRY G. HOTZ, M. A., Ph. D., *In Charge of Educational Surveys.*

JOHN CLARK JORDAN, M. A., Ph. D., *In Charge of Arkansas High School Debating League.*

EVANGELINE PRATT, B. A., *Secretary, In Charge of Correspondence Instruction.*

WILLIAM B. STELZNER, B. E. E., E. E., M. S., *In Charge of Engineering Instruction Staff.*

FREDERICK G. BAENDER, B. M. E., *Professor of Heat Power Engineering.*

G. N. CADE, A. M., *Director of Teacher Training.*

G. H. CADY, M. A., Ph. D., *Professor of Geology.*

\*Electric Railways 53.

Electric Transmissions 54.

Illumination 55.

\*These electric courses are regular college courses which the short course men are permitted to attend, but with the understanding that no college credit will be given.

- M. R. ENSIGN, M. A., *Associate Professor of Agricultural Education.*
- HARRISON HALE, M. S., Ph. D., *Professor of Chemistry.*
- L. S. HAMILTON, A. M., *Assistant Professor of History.*
- J. L. HANCOCK, M. A., Ph. D., *Associate Professor of Ancient Languages.*
- A. M. HARDING, M. A., Ph. D., *Professor of Mathematics and Astronomy.*
- E. G. HASSELL, B. A., *Assistant in Music.*
- H. G. HOTZ, M. A., Ph. D., *Professor of Secondary Education.*
- JEWELL C. HUGHES, M. A., *Instructor in Mathematics*
- J. R. JEWELL, M. A., Ph. D., *Professor of Education.*
- VIRGIL L. JONES, Ph. D., *Professor of English.*
- A. M. JORDAN, M. A., Ph. D., *Professor of Psychology.*
- J. C. JORDAN, M. A., Ph. D., *Professor of English.*
- JAMES KESSLER, A. M., *Associate Professor of Romance Languages.*
- A. E. LUSSKY, M. A., Ph. D., *Professor of German.*
- ANTONIO MARINONI, M. A., *Professor of Romance Languages.*
- G. B. MCCOWEN, B. S., *Instructor in Economics and Sociology.*
- OWEN MITCHELL, *Assistant in Music.*
- M. AGNES NELSON, Ph. B., *Instructor in Home Economics.*
- L. A. PASSARELLI, M. A., *Assistant Professor of Romance Languages.*
- SIDNEY PICKENS, A. B., *Instructor in Education.*
- C. M. REINOEHL, M. A., Ph. D., *Professor of School Administration.*
- G. E. RIPLEY, M. S., *Professor of Physics.*
- J. G. ROSSMAN, M. A., *Instructor in Education.*
- ROWENA SCHMIDT, B. S. E., *Assistant Professor of Home Economics.*
- MURRAY SHEEHAN, M. A., *Associate Professor, Journalism.*
- W. B. STELZNER, E. E., M. S., *Professor of Electrical Engineering.*
- G. P. STOCKER, B. S., C. E., *Professor of Civil Engineering.*
- H. H. STRAUSS, M. A., *Professor of Ancient Languages.*
- D. Y. THOMAS, M. A., Ph. D., *Professor of History.*
- J. S. WATERMAN, M. A., *Associate Professor of Economics and Sociology.*
- B. N. WILSON, M. E., M. M. E., *Professor of Experimental Engineering and Drawing.*
- ELIZABETH P. WILSON, *Instructor in Education.*



The purpose of the University of Arkansas is to serve not only a group of qualified resident students, but all the people of the state. To this end the University Extension Service was established, the General Extension Division to represent the Colleges of Engineering, Arts and Sciences, Education, and the Agricultural Extension Division to represent the College of Agriculture.

The General Extension Division places at the disposal of the people of Arkansas the same opportunities for instruction and culture offered resident students, disseminates the valuable knowledge obtained from research and investigation, and is the medium through which many educational and public service resources outside the state are made available for effective public use.

The activities of the General Extension Division may be classified under the following heads. It should be understood, however, that the services rendered are by no means limited to those mentioned. The scope of the usefulness of the Division extends into new fields whenever an opportunity to be of service presents itself.

**CORRESPONDENCE INSTRUCTION.**—To those persons who cannot attend the University, the Bureau of Correspondence Instruction furnishes extension courses in vocational, technical, and cultural subjects, carrying the same credit as residence courses and supervised by the same instructors. A certificate is granted upon completion of every course. This service is invaluable professionally to teachers, working men, business men, and students working toward a degree, as well as to persons studying for culture alone. A number of preparatory courses are offered for those to whom high school training is not available or practicable. Any grammar school graduate may enroll in these courses. There are special courses for teachers which they may take in place of teachers' examinations to raise the grade of their certificates.

**CLUB STUDY COURSES.**—Subjects which are of greatest interest to the clubs of the state are selected by the General Extension Division, and courses of twelve lessons are prepared on each. Each lesson contains references and questions and forms a complete program for one meeting. If desired, all necessary reference books will be furnished, and year books will be printed for the club.

**VISUAL INSTRUCTION.**—The Bureau of Visual Instruction functions in a number of ways. In co-operation with the University of Oklahoma, it furnishes excellent films for school and community entertainment, selected by a special board of censorship from the best new productions. The Bureau circulates free films from various sources, and educational films at cost from the best distributors.

Sets of slides on almost any grammar or high school subject are supplied from the Bureau's own library, and a number of other sets from other sources are distributed.

**LECTURES AND ENTERTAINMENTS.**—The General Extension Division arranges for lectures and entertainments to be given by prominent professional men and women, ministers, musicians, state officials, and university professors on a wide range of subjects. This service gives business men an opportunity to hear talks by experts in their particular fields; gives women an opportunity to attend lectures of definite interest to them; furnishes speakers and musical programs for special occasions; and serves to extend the educational influence of the University generally, as well as to further community spirit.

At present there is no fund available to cover the expense connected with this service. Consequently the General Extension Division is compelled to charge a small fee, which is the same for all towns in the state, so that the towns near Fayetteville have no advantage over those more remote.

**LYCEUM COURSES.**—The General Extension Division can furnish a limited number of lyceum courses. These courses are offered at cost. Their quality is above the average, many of the numbers being given by University artists.

In securing other talent, the General Extension Division gets an option on a number of engagements for professional concert companies and entertainments, and acts as a clearing house for these dates. In this way much can be saved on the cost of the local lyceum course.

**ARKANSAS HIGH SCHOOL DEBATING LEAGUE.**—This organization is for the promotion of the consideration and discussion of present day problems. On account of the great increase in membership in the League, the state has been divided into six districts. In each district preliminary debates are held to eliminate to one school. Debates are then held between the three northern districts and between the three southern districts. The two schools which are winners in these debates then send their teams to the University for the final debates and honors.

**CLASS STUDY.**—Extension classes are organized in any community and in any subject where the enrollment justifies it. These classes are taught by University instructors. The courses given are standard courses, under the supervision of the College under which they fall, and University credit is granted those who complete the work. Class centers have been established at Rogers, Fort Smith, Batesville, Fordyce, Wynne, and Texarkana.

**PHONOGRAPH RECORDS.**—To cultivate an appreciation and understanding of good music, the General Extension Division sends out sets of the best records, selected by the Department of Fine Arts, making up complete programs, accompanied by suitable lecture material.

**CLUB STUDY OUTLINES.**—Study outlines are furnished free of charge on subjects of interest to clubs. Lists of references are furnished with these outlines; it is often possible for reference books to be loaned from the General Extension Division.

**PLAYS AND RECITATIONS.**—To assist in the selection of good plays, the General Extension Division lends copies from its library of plays from which one may be selected for local use. Readings may be borrowed, copies of the most suitable ones made, and the originals returned. Excellent contest material may be found in these readings.

**GENERAL INFORMATION.**—The General Extension Division endeavors to answer questions and give information on all subjects. Lists of references and packages of collected material are sent whenever possible. This service is free, and is found invaluable by individuals, clubs, civic societies, and other organizations.

**COMMUNITY INSTITUTES.**—To secure unified action toward community improvement, the General Extension Division conducts community institutes, designed to make systematic investigation of local problems and to carry on profitable discussion which will lead to the solution of such problems. These institutes consist of one, two, or three-day programs on which appear local people, the best known men and women from the State Departments, clubs and association, and from the University and other educational institutions. Lectures and illustrated talks are given, demonstrations offered, motion pictures shown, and conferences held. Modern business methods, co-operation between merchant and farmer, public health, city beautification, and similar subjects are considered. "Get together meetings" are held at night, consisting of musical programs, picture shows, home talent plays, informal discussions, and similar things of interest.

**SCHOOL SURVEYS.**—During the past year the College of Education has made a survey of the Fort Smith school system which has proved to be one of the most comprehensive surveys ever made in the United States. It has already assisted the teachers of Harrison in making an auto survey of their own school system. Now that the Fort Smith schools have been thoroughly surveyed with national standards in mind, it will not be difficult for other Arkansas schools to compare their work and organization with such national standards.

**EDUCATIONAL INFORMATION AND ASSISTANCE.**—Through the General Extension Division, the College of Education offers its services to any community making an effort to improve its system of public schools. The members of the faculty are ready at all times to address county and city teachers' meetings, women's clubs, and other organizations on educational topics. Any school problem whatever, which may arise, will be carefully considered and capable assistance given.

The Bureau of Tests and Measurements is maintained for the purpose of assisting the school systems of Arkansas in standardizing their work in the various grades. It is ready to furnish at cost the best tests available, or in case the tests needed are not in stock, to put those interested in touch with the proper source of supply. The Bureau will tabulate results, score papers, when necessary, and publish from time to time bulletins showing the comparative standing of the schools co-operating. The results will be interpreted by experts and recommendations made to the principals and superintendents as to possible changes in curriculum, standards of promotion, or treatment of individual cases.

The College of Education publishes regularly a bulletin of abstracts and reviews, for the purpose of selecting from the numerous books which appear each year the most valuable ones for the use of teachers, and to aid the intelligent choice of books for the school room library.

A Recommendation Bureau is maintained to assist in placing students of the University in teaching positions. This service is free and has proved invaluable in bringing together good situations and suitable teachers.

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## COLLEGE OF AGRICULTURE

The courses in the College of Agriculture are designed to train men for work in agriculture as farmers, farm managers, county agricultural agents, teachers of vocational agriculture, animal husbandmen, horticulturists, managers of farmers' organizations, marketing agents, research and extension specialists, and various other lines of work now open to graduates of colleges of agriculture; and to train women for work in Home Economics as teachers, vocational teachers in Smith-Hughes schools, county home demonstration agents, dietitians, managers of homes, and similar duties.

### ADMISSION

For detailed statement of entrance requirements and descriptions of subjects accepted for entrance, see a previous page.

### COURSES OF STUDY

The College of Agriculture offers the following courses:

1. A four-year general course in Agriculture.
2. A four-year course in Agronomy.
3. A four-year course in Animal Husbandry.
4. A four-year course in Dairy Husbandry.
5. A four-year course in Horticulture.

6. A four-year course in Plant Pathology. (Requirements on application.)

7. A four-year course in Agricultural Chemistry. (Requirements on application.)

8. A four-year course in Entomology. (Requirements on application.)

9. A four-year course in Agricultural Education for teachers in Smith-Hughes Vocational Schools, offered in conjunction with the College of Education.

10. A four-year course in Agriculture for the training of County Agents and other Extension workers.

All of the courses listed above lead to the degree of Bachelor of Science in Agriculture (B. S. A.). In addition, special short courses in agriculture are offered.

11. A four-year course in Home Economics.

12. A four-year course in Home Economics for the training of teachers in Smith-Hughes Vocational Schools offered in conjunction with the College of Education.

13. A four-year course for home demonstration agents.

The last three courses lead to the degree of Bachelor of Science in Home Economics (B. S. H. E.). In addition, special short courses are given for farm women and others.

## REQUIREMENTS FOR DEGREE OF BACHELOR OF SCIENCE IN AGRICULTURE

The candidate must meet the entrance, residence, and registration requirements and must complete satisfactorily two hundred and ten credit hours as outlined in the following courses of study. The first two years are considered as foundation years and are the same for all courses in agriculture. The Junior and Senior years involve more highly specialized work.

Required subjects must be taken in regular order as scheduled. Courses with prerequisites cannot be taken out of their regular order without the consent of the head of the department and the Dean of the College.

## FOUR-YEAR GENERAL COURSE IN AGRICULTURE

### *Freshman Year*

Course	CREDIT HOURS		
	FALL	WINTER	SPRING
English 131, 132, 133.....	3	3	3
Chemistry 141, 142, 143.....	4	4	4
Botany 141, 142, 143.....	4	4	4
Trigonometry 131.....	3	..	..
Crops (Agron. 142).....	..	4	..
Vegetable Gardening (Hort. 133).....	..	..	3



Course	CREDIT HOURS		
	FALL	WINTER	SPRING
Poultry (A. H. 131).....	3	..	..
Forge Shop (Mech. Eng. 122).....	..	2	..
Wood Work (Mech. Eng. 124).....	..	..	2
Graphic Methods (Agr. Eng. 113).....	..	..	1
Military Art 111, 112, 113.....	1	1	1
	18	18	18

*Sophomore Year*

Qualitative Analysis (Chem. 241).....	4	..	..
Agricultural Chemistry (Agr. Chem. 242) ..	..	4	..
Organic Chemistry (Chem. 243).....	..	..	4
Physics 241, 242.....	4	4	..
Judging Market Classes (A. H. 232).....	..	..	3
Geology 231.....	3	..	..
Soils (Agron. 232, 233).....	..	3	3
Farm Machinery (Agr. Eng. 231).....	3	..	..
Dairying (A. H. 231).....	..	3	..
Drainage and Terracing (Agr. Eng. 233) ..	..	..	3
Horticulture 231.....	3	..	..
Zoology 232-243.....	..	3	4
Military Art 211, 212, 213.....	1	1	1
	18	18	18

At the beginning of the junior year the candidate may choose the general course in agriculture, or a major subject in one of the various departments of the College, the choice of which will determine largely his course of study for the junior and senior years.

Students taking any of the major courses outlined on the following pages will choose from courses approved by the candidate's major professor so as to include for the junior and senior year not less than thirty, nor more than thirty-four, credit hours in the major subject.

*GENERAL COURSE*

The following course is prescribed for those who desire a general course in agriculture. The electives in this general course in the junior and senior years are subject to approval by the Dean of the College of Agriculture.

*Junior Year*

Course			
English (331, 332, 333).....	3	3	3
Feeds and Feeding (A. H. 352).....	..	5	..
General Bacteriology (Bact. 351).....	..	..	5
Agricultural Economics (Agr. Econ. 331, 332) ..	3	3	..
Farm Crops (Agron. 331, 332, 333).....	3	3	3
History of Breeds and Pedigrees (A. H. 351).....	5	..	..

*Senior Year*

Farm Management (Agr. Econ. 431, 432).....	3	3	..
Economic Entomology (Ent. 252).....	5	..	..

Course	CREDIT HOURS		
	FALL	WINTER	SPRING
Plant Pathology (P. P. 352).....	3	5	..
Farm Buildings (Agr. Eng. 442).....	..	4	..
Animal Breeding (A. H. 433).....	..	..	3
Market Gardening (Hort. 331).....	3	..	..

Electives junior and senior year, 37 hours, of which 15 hours must be chosen from subjects in the following departments:

Animal Husbandry.  
Agricultural Chemistry.  
Agricultural Engineering.  
Agricultural Economics.  
Agronomy.  
Bacteriology.  
Entomology.  
Horticulture.  
Plant Pathology.  
Veterinary Science.  
Agricultural Education.

The remainder may be chosen from any Department of the College of Agriculture or of the University.

### AGRONOMY MAJOR

#### Junior Year

##### REQUIRED

Course			
English (331, 332, 333).....	3	3	3
Field Crops (Agronomy 331, 332, 333).....	3	3	3
Soil Fertility (Agronomy 345, 346).....	4	4	..
Bacteriology (351) .....	..	..	5

#### Senior Year

##### REQUIRED

Major Courses in Agronomy.....	13
Farm Buildings (Agr. Eng. 442).....	4
Plant Pathology 352 .....	5

Electives in the junior and senior years must include not less than six of the following subjects:

Agricultural Chemistry (341)  
Agricultural Engineering (331 or 333)  
Bacteriology (543 or 544).  
Farm Management (431-432).  
Plant Pathology (442).  
Education (242) and (130 or 331).  
Agricultural Economics (331-332).  
Animal Husbandry (351 or 352).  
Economic Entomology (252).  
Horticulture (331 or 332).  
Veterinary Science (341 or 333).  
Vocational Education (330) or Practice Teaching.

Additional electives may be chosen from any Department of the College of Agriculture or from the following: Economics,

Sociology, Public Speaking, Journalism, History, Political Science, Language or Science.

### ANIMAL HUSBANDRY MAJOR

#### Junior Year

Course	CREDIT HOURS		
	FALL	WINTER	SPRING
English (331, 332, 333).....	3	3	3
General Bacteriology (Bact. 351).....			5
History of Breeds and Pedigrees (A. H. 351).....	5		
Feeds and Feeding (A. H. 352).....		5	
Animal Breeding (A. H. 331).....			2
Live Stock Judging (A. H. 321, 322).....			3
Veterinary Science (Vet. Sci. 341, 331, 332).....	4	3	3
Genetics (Bot. 341).....		4	

#### Senior Year

Major Courses in Animal Husbandry.....	13
Farm Buildings (Agr. Eng. 442).....	4
Electives (Junior and Senior).....	40

Electives in the junior and senior years to include not less than six of the following subjects:

Agricultural Economics (331-332).

Farm Management (431-432).

Agronomy (331-332-333).

Agronomy (345-346).

Horticulture (342 or 349).

Agricultural Engineering (331).

Dairy Husbandry (A. H. 333 or 437).

Poultry Production (A. H. 435).

Economic Entomology (252).

Bacteriology (543).

Agricultural Chemistry (351 or 335).

Education (242 and 130 or 331).

Vocational Education (330) or Practice Teaching.

Additional electives may be chosen from any department of the College of Agriculture or from the following: Economics, Sociology, Public Speaking, Journalism, History, Political Science, Language, and Science.

### DAIRY HUSBANDRY MAJOR

#### Junior Year

Course			
English (331-332-333).....	3	3	3
General Bacteriology (Bact. 351).....			5
History of Breeds and Pedigrees (A. H. 351).....	5		
Feeds and Feeding (A. H. 352).....		5	
Animal Breeding (A. H. 331).....			3
Veterinary Science (Vet. Sci. 341-331-332).....	4	3	3
Creamery Butter Making and Accounting (A. H. 341).....		4	
Dairy Stock Judging (A. H. 333).....			3
Genetics (Bot. 341).....	4		

*Senior Year*

<b>Course</b>	
Major Courses in Dairy Husbandry.....	10
Farm Buildings (Agr. Eng. 442) .....	4
Bacteriology (543).....	4
Electives (Junior and Senior).....	36

Electives in the junior and senior years to include not less than six of the following subjects:

- Agricultural Economics (331-332).
- Farm Management (431-432).
- Agronomy (331-332-333).
- Agronomy (345-346).
- Horticulture (342 or 349).
- Agricultural Engineering (331).
- Animal Husbandry (321-322).
- Poultry Production (435).
- Economical Entomology (252).
- Bacteriology (543).
- Agricultural Chemistry (351 or 335).
- Education (242 and 130 or 331).
- Vocational Education (330) or Practice Teaching.

Additional electives may be chosen from any department of the College of Agriculture, or from the following: Economics, Sociology, Public Speaking, Journalism, History, Political Science, Language, and Science.

*HORTICULTURAL MAJOR**Junior Year*

<b>Course</b>	<b>CREDIT HOURS</b>		
	<b>FALL</b>	<b>WINTER</b>	<b>SPRING</b>
English (331-332-333) .....	3	3	3
Market Gardening (Hort. 331).....	3	..	..
Orchard Management (Hort. 332).....	..	3	..
Small Fruits (Hort. 333).....	..	..	3
Economic Entomology (Ent. 252).....	5	..	..
Soil Fertility (Agron. 345-346).....	4	4	..
Genetics (Bot. 341).....	..	4	..
Potato Production (Hort. 339).....	..	..	3
Electives .....	3	4	3
	<b>18</b>	<b>18</b>	<b>18</b>

*Senior Year*

Harvesting and Refrigeration (Hort. 441).....	4	..	..
Spraying and Spray Materials (Hort. 437) .....	..	..	3
Plant Pathology (P. P. 352).....	..	5	..
Bacteriology (351).....	..	..	5
Farm Buildings (Agr. Eng. 442) .....	..	4	..
Electives .....	12	7	8
	<b>16</b>	<b>16</b>	<b>16</b>

Students majoring in Horticulture must take at least eleven additional hours of work in Horticultural subjects to satisfy major requirements.

At least six subjects must be elected from the following list:

French 141-142-143.  
 German 131-132-133.  
 Public Speaking (English 533).  
 Plant Physiology (Botany 347).  
 Agricultural Economics 331-332.  
 Marketing (Agri. Econ. 531).  
 Farm Management (Agri. Econ. 431-432).  
 Gas Engines (Agri. Eng. 331).  
 History of Breeds and Pedigrees (A. H. 351).  
 Feeds and Feeding (A. H. 352).  
 Meat and Its By-Products (A. H. 420).  
 Advanced Economic Entomology (Ent. 335).  
 Plant Pathology Methods (P. P. 435-436-437).  
 Vocational Education (339) or practice teaching.

Additional electives may be chosen from any subject in the College of Agriculture, or in Economics and Sociology, Education, Public Speaking, Journalism, History, Political Science, Language, or Science.

### AGRICULTURAL EDUCATION

#### Junior Year

##### REQUIRED

Course	CREDIT HOURS		
	FALL	WINTER	SPRING
English 331-332-333.....	3	3	3
Teaching Process (Educ. 130).....	3	..	..
Principles Secondary Education (Ed. 143).....	..	4	..
Psychology of Teaching.....	..	..	4
	<u>6</u>	<u>7</u>	<u>7</u>

#### Senior Year

Vocational Agricultural Education 330.....	..	..	3
Special Methods and Practice Teaching.....	..	..	12
	<u>..</u>	<u>..</u>	<u>15</u>

Electives in the junior and senior years to include not less than eight of the following subjects:

Agricultural Economics (331-332-531-521).  
 Agricultural Engineering 322, 442, 331.  
 Animal Husbandry 331, 351, 352, 450.  
 Agronomy (331-332-333).  
 Bacteriology (351).  
 Economic Entomology (252).  
 Farm Management (Agri. Econ. 431-432).  
 Horticulture (331-437).  
 Veterinary Science (331-332).



Plant Pathology (352-442).

Soil Fertility (345-346).

Additional electives may be chosen in any department of the College of Agriculture, or in Political Economy, Sociology, History, English, Languages, or Sciences.

## REQUIREMENTS FOR DEGREE OF BACHELOR OF SCIENCE IN HOME ECONOMICS

The candidate must meet the entrance, residence, and registration requirements and must complete satisfactorily one hundred ninety-eight credit hours as outlined in the following courses of study. The first two years are considered as foundation years and are the same for all courses in Home Economics. The junior and senior years involve more highly specialized work.

### *Freshman Year*

Course	CREDIT HOURS		
	FALL	WINTER	SPRING
English 131, 132, 133.....	3	3	3
Chemistry 141, 142, 143.....	4	4	4
Elementary Sewing (H. E. 131, 132, 133).....	3	3	3
Foods (H. E. 136, 137, 138).....	3	3	3
Elementary Design (Art. 134, 135, 136).....	3	3	3
Physical Education 111, 112, 113.....	1	1	1
	17	17	17

### *Sophomore Year*

Zoology 241, 242 and 243 or Botany 141.....	4	4	4
Psychology 140 .....	4	4	..
Chemistry 241, 242 or Agri. Chem. 243.....	4	..	4
Survey of Home Economics Literature (H. E. 227) ..	2	..	..
Health and Child Care (H. E. 238).....	..	..	3
Textiles and Clothing Economics (H. E. 234, 235, 236).....	3	3	3
Study of Costume (H. E. 222, 223).....	..	2	2
Physical Education 211, 212, 213.....	1	1	1
Electives .....	3	3	2
	17	17	17

After the second year the student may choose one of the following courses:

### *GENERAL COURSE*

#### *Junior Year*

Course			
Economics or Sociology.....	4		
Study of Costume H. E. 222, 223) .....	..	2	2
Modern Language.....	4	4	4
Bacteriology 342 .....	4		
Food Economics and Advanced Food Preparation (H. E. 331, 332, 323) .....	3	3	2
Meat and Its By-Products (A. H. 430). .....	..	2	..
Household Problems (H. E. 324).....	..	2	..
*Electives .....	1	3	8
	16	16	16

*Senior Year*

Course	CREDIT HOURS		
	FALL	WINTER	SPRING
English .....		4	4
Modern Language.....	3	3	3
House Planning (H. E. 441).....	4	..	..
House Furnishing (H. E. 442).....	..	4	..
Women and Social Work (H. E. 443).....	..	..	4
Household Management (H. E. 361).....	6	..	..
*Electives .....	3	5	5
	16	16	16

*VOCATIONAL HOME ECONOMICS TEACHER-  
TRAINING COURSE*

The teacher's certificate, in addition to the degree of Bachelor of Science in Home Economics, is granted to all candidates for a degree who complete the following courses. This course is offered by agreement between the College of Education and the College of Agriculture and is designed especially for the training of teachers in Vocational Home Economics in Smith-Hughes Vocational Schools (see College of Education):

*Junior Year*

Course			
Economics or Sociology.....	4	..	..
Food Economics (H. E. 331, 332) ..	3	3	..
History of Education (Ed. 140).....	4	..	..
Teaching Process (Ed. 130).....	..	3	..
Principles of Secondary Education (Ed. 243) ..	..	..	4
Methods of Teaching Home Economics (Ed. 341) ..	..	..	4
Farm Home Conveniences (Agr. Eng. 322).....	..	2	..
Bacteriology 342 .....	4	..	..
Household Problems (H. E. 324).....	1	2	..
*Electives .....	1	6	8
	16	16	16

*Senior Year*

Practice Teaching (Ed. 250).....	..	5	5
Household Management (H. E. 361) .....	6	..	..
House Planning (H. E. 441).....	4	..	..
House Furnishing (H. E. 442).....	..	4	..
Women and Social Work (H. E. 443) .....	..	..	4
Dietetics (H. E. 334, 335, 336).....	3	3	3
*Electives .....	3	4	4
	16	16	16

\*To be chosen on advice of major professor. A maximum of 12 hours in music will be given as credit toward the degree of Bachelor of Science in Home Economics, including the first year's work. Not more than 6 hours may be taken in any one year.

## HOME DEMONSTRATION COURSE

*Junior Year*

Course	CREDIT HOURS		
	FALL	WINTER	SPRING
Economics or Sociology.....	4	--	--
Food Economics (H. E. 331, 332).....	3	3	3
Millinery (H. E. 531) .....	--	--	3
Household Problems (H. E. 324).....	--	2	--
Vegetable Gardening (Hort. 131) .....	--	--	3
Farm Poultry Culture (A. H. 131) .....	3	5	--
Meat and Its By-Products (A. H. 430) .....	5	2	--
Journalism 537, 538, 539.....	3	3	3
*Electives .....	3	6	4
	16	16	16

*Senior Year*

Household Management (H. E. 361) .....	6	--	--
House Planning (H. E. 441) .....	--	--	--
House Furnishing (H. E. 442).....	--	4	--
Women and Social Work (H. E. 443).....	--	--	4
Extension Methods (Agri. Econ. 521).....	--	2	--
Farm Home Conveniences (Agr. Eng. 322) .....	--	2	--
Dietetics (H. E. 334, 335, 336).....	3	3	3
*Electives .....	3	5	9
	16	16	16

## DEPARTMENTAL STATEMENTS

*AGRICULTURAL CHEMISTRY*

PROFESSOR READ, ASSISTANT PROFESSOR SURE

Agricultural Chemistry deals mainly with the chemical changes occurring in the soil, the growth and life of plants, animal nutrition, and the preparation of food products. The development of agriculture is calling for an ever increasing number of chemists. The courses offered in this department are intended to give the student in agriculture or home economics a broad view of the subject, and to train men for instructional and experimental work in the various fields of chemical activity as applied to agriculture.

242. QUANTITATIVE AGRICULTURAL CHEMISTRY.—General survey of chemistry in its relation to soils, fertilizers, manures, and feeding stuffs. Two lectures and two laboratory periods. Prerequisite: Chemistry 241. Winter. Fee, \$3.00. READ.

243. AGRICULTURAL CHEMISTRY AS APPLIED TO THE HOME.—A very practical course dealing with the composition and nutritive value of the more common foods and their preservation;

\*To be chosen on advice of major professor. A maximum of 12 hours in music will be given as credit toward the degree of Bachelor of Science in Home Economics, including the first year's work. Not more than 6 hours may be taken in any one year.

proprietary infant foods; household remedies and disinfectants; toilet articles, and the chemistry of laundering, dyeing, and textiles. Lectures and recitations three hours. Prerequisite: Chemistry 141-143. Spring. Fee, \$2.00. READ.

245. ANALYSIS OF FOODS.—The application of quantitative methods employed in the analysis of the more common foods, and practice in testing for the presence of adulterants, preservatives and artificial coloring. Lectures and recitations two hours; laboratory six hours a week. Prerequisite: Chemistry 241. Winter. Fee, \$2.50. READ.

341. BIOCHEMISTRY.—A general course dealing with the organic and inorganic compounds found in plants and animals and the chemical changes involved in such processes as metabolism and growth. Lectures and recitations four hours. Prerequisite: Organic Chemistry 242. Fall. READ.

343. PRINCIPLES OF NUTRITION.—Special emphasis placed on the chemistry and physiology of carbohydrate, fat, protein and mineral metabolism, and the energy requirements for maintenance, growth, and reproduction. Prerequisite: Chemistry 242. Fall or Spring. READ, SURE.

331. CHEMISTRY OF DAIRY PRODUCTS.—The composition and complete analysis of milk, butter, cheese, and other dairy products. The chemistry of fermentation. One lecture and two laboratory periods. Prerequisite: Chemistry 241. Autumn. Fee, \$2.50. READ.

342. CHEMISTRY OF INSECTICIDES AND FUNGICIDES.—The preparation, composition, and analysis of the more important insecticides and fungicides. Two lectures and two laboratory periods. Prerequisite: Chemistry 242. Fall. Fee, \$3.00. READ.

332. PLANT CHEMISTRY.—The chemistry and classification of plant constituents; the vital processes involved in growth and nutrition; and the chemistry of the manufacture of certain plant products. Three lectures and one laboratory period. Prerequisite: Chemistry 242. Winter or spring. Fee, \$2.00. READ.

421 (422) (423). AGRICULTURAL CHEMISTRY RESEARCH.—Special problems assigned to advanced students majoring in Agricultural Chemistry. Credit: one to two hours each term. READ, SURE.

### AGRICULTURAL ECONOMICS

PROFESSOR KNAPP, PROFESSOR MCNAIR

This department offers courses in Agricultural Economics, Agricultural Organization, Farm Management, and Marketing. The object is to acquaint the student thoroughly with the business side of agriculture, especially the organization of the farm as a business unit and its relationship to other farms, and the business organization of agriculture both in production and mar-

keting. It takes up questions of leases, tenantry, and other economic problems. Each subject matter course in other departments in the College of Agriculture teaches the ordinary processes of marketing each product. The Department of Agricultural Economics teaches only those subjects in marketing which are general in application. It deals with the organization, methods, principles and practices in co-operative marketing.

331 (332). AGRICULTURAL ECONOMICS.—Problems of distribution, rents, value of farm lands, farm labor and wages, rates of interest and profits in Agriculture. The organization and method of marketing farm products, the price, quotations, transportation, futures, inspection and grading, co-operative buying and selling. Fall and winter. (By arrangement with Department of Economics and Sociology, College of Arts and Sciences.) SCOTT.

531. MARKETING.—Study of the general principles of co-operative marketing and the marketing functions including classing, standardizing, assembling, storage, financing and distribution of farm products. Juniors and seniors. Fall. KNAPP.

431-432. FARM MANAGEMENT.—General principles of farm management, choice of farm, types of farming, farm organization and administration, factors and cost of production, records, and accounts. Lectures and problems. Also visits to farms. Fall and winter. MCNAIR.

433. ADVANCED FARM MANAGEMENT.—Advance course in farm management, farm accounting, farm tenure, contribution of investment by landlord and tenant, distribution of receipts and expenses, leases. Lectures and problems three hours. Spring. MCNAIR.

521. EXTENSION ORGANIZATION AND METHODS.—The history of extension work, its origin and development; general principles involved; method of organization in state and county; manner of conducting demonstrations with farmers; means of ascertaining agricultural problems and planning work on a community, county and state-wide basis; methods of approach. Winter. KNAPP.

## AGRICULTURAL ENGINEERING

### PROFESSOR WIRT

(Under the Joint Supervision of the Dean of the College of Agriculture and the Dean of the College of Engineering.)

The object is to train the student, (1) in the construction, adjustment, operation and selection of modern, labor-saving farm implements and power-farming machinery; (2) to drain and terrace farm lands; (3) to make effective use of modern home conveniences; and (4) to design and supervise the erection of structures on his own farm and to construct minor buildings.



113. **GRAPHIC METHODS.**—The use of graphs, charts, and diagrams in the graphical representation of agricultural data are studied by actual preparation of such charts in the laboratory. It is designed to familiarize the student with methods of presenting data by means of charts and curves, and to enable him to interpret such data when encountered in textbooks and references. Three hours laboratory. No prerequisite. Spring. Fee \$1.00. WIRT.

231. **FARM MACHINERY.**—Construction, adjustment, operation, care, and uses of plows, harrows, grain drills, corn and cotton planters, mowers, rakes, grain and rice binders, manure spreaders, sprayers, wagons, and other implements are studied in the class-room, laboratory, and field. One hour recitation. Six hours laboratory. No prerequisite. Fall. Fee \$1.00. WIRT.

233. **PRACTICAL FARM DRAINAGE AND TERRACING.**—Farm drainage, including use of instruments, ditching, tiling, terracing, prevention of erosion, and effect of drainage on crops and soils. One recitation, six hours laboratory. Prerequisites: Trigonometry and Soils. Spring. Fee \$1.00. WIRT or CLAYTON.

322. **FARM HOME CONVENIENCES.**—The conveniences which make home life on the farm more attractive. Electric and other forms of lighting; water supply; sewage disposal; and heating systems. Recitations. No prerequisite. Winter. WIRT.

331. **GAS ENGINES.**—Application of gas engines to farm work. Operation, care, adjustment, and repair of gasoline and kerosene engines for the farm. Two recitations, three hours laboratory. Prerequisite: Farm Machinery. Fall. Fee, \$1.00. WIRT.

333. **TRACTORS.**—The construction, adjustment, repair, care, and operation of gasoline and kerosene tractors for farming operations. Field work is emphasized. One recitation, six hours laboratory. Prerequisite: Gas Engines. Spring. Fee \$1.00. WIRT.

442. **FARM BUILDINGS.**—Planning and construction of poultry houses, implement sheds, dairy barns, silos, general barns, sweet potato storage houses, hog houses, farm residences and model farmsteads. Plans are drawn, bill of materials itemized, and complete specifications of some farm buildings are made in the laboratory. Two hours recitation, six hours laboratory. No prerequisite. Winter. Fee \$1.00. WIRT.

### AGRONOMY

PROFESSOR NELSON, ASSOCIATE PROFESSOR SACHS, ASSOCIATE PROFESSOR OSBORN, ASSISTANT PROFESSOR McCLELLAND,  
ASSISTANT PROFESSOR WARE, MR. AUSTIN

The courses in this department are designed to meet the requirements of (1) students who desire a knowledge of the subject as a part of a general education; (2) students who are in-

terested especially in farm operations, or the management of land; (3) students who desire a technical knowledge of the subject as a preparation for teaching, or graduate or research work.

142. AGRONOMY.—Crops (cotton, corn, small grains, clovers, grasses, forage, and miscellaneous crops), including varieties, strains, quality, the use of score cards; identification of seed grasses, clovers, alfalfa, other legumes and forage crops; weed seed, characteristic adulterants. Stress placed upon the staple crops. Lectures and recitations two hours, laboratory four hours. No prerequisite. Winter. Fee, \$1.00. McCLELLAND.

212. COTTON CLASSING.—The relative value of cotton grades and the factors that determine them, with practical exercises in classing and stapling. Open to any student in the University in the sophomore, junior, or senior classes. Students in Agronomy 431-432 may not take this course. Winter. Fee, \$2.00 WARE.

232 (233). SOILS.—The origin, formation, physical properties, and classifications of soils; soil moisture, its movements and methods of control, drainage, tillage, checking erosion; relation of different physical properties of soil to moisture holding capacity, temperature and aeration, with special reference to soil management. Lectures, recitations, and laboratory three hours. Prerequisites: 142 and Chem. 141-143. Winter and spring. Fee, \$2.00 each term. SACHS, AUSTIN.

322. SEED TESTING AND EXAMINATION.—The purity and quality of seeds, factors affecting germination, identification of weed seeds, use of germinators for official and for home testing. Laboratory practice two periods. Winter. McCLELLAND.

331 FARM CROPS.—A thorough study of corn, including germination tests, planting, cultivation, harvesting, storing, improvement, fertilization, rotation; station work, varieties, commercial grading, and marketing. Prerequisites: 142, 233. Fall. NELSON.

332. FARM CROPS.—The small grains, including varieties, adaptation, culture; rotation and rotation practices; crop improvement; station work; commercial grading, and marketing. Prerequisites: 142, 233. Winter. NELSON.

333. FORAGE CROPS.—Forage crops, including grasses, clovers, alfalfa, annual legumes and other forage crops; adaptation, utilization, culture, possibilities and methods of improvement; purity and germination tests; weeds and weed control. Prerequisite: 142, 233. Spring. NELSON.

345 (346). SOIL FERTILITY.—Crop requirements; nature and source of plant foods; exhaustion of soils, maintenance and increase of fertility; green manures, farm manures and commercial fertilizers; biological life of soils, with special attention to the nitrogen problem and liberation of mineral plant foods; rota-

tions and effect of different systems of farming on productivity of the soil, based on a study of the older field experiments. Lectures, recitations and laboratory four hours. Prerequisite: 233. Autumn and winter. Fee, \$3.00 each term. SACHS, AUSTIN.

337. SOIL CLASSIFICATION.—To familiarize the student with the methods and practice of soil survey work. The important soil types with special reference to Arkansas and the South in general. Lectures and field practice three hours. Prerequisite: 232-233. Spring. Fee, \$2.00. SACHS.

321. EXPERIMENTAL METHODS.—Conception and statement of problems, planning experiments, suitable land or conditions, purpose and use of checks, possibility and probability of error. Methods of record keeping, tabulation and graphic representation of results. Fall. Prerequisites: 333, 346, 431. McCLELLAND.

323. JUDGING AND GRADING.—Factors determining the official grades of corn, rice, small grains, hay, and other crops. Judging of exhibition and market samples, practice in commercial grading. Spring. Laboratory practice two periods. McCLELLAND.

431. COTTON PRODUCTION.—An advanced course in the production of cotton. Origin, history, production, composition, and cropping systems. Practical work: the form and structure of the cotton plant and fibre, identification of various groups, and variety studies in the field. Lectures and laboratory three hours. Prerequisites: 142, 233. Fall. WARE.

432. COTTON HANDLING.—Continuation of 431. Cotton improvement by selection and breeding, harvesting, storing, and marketing. Laboratory work: "Cotton classing" and "stapling." The government standards used for comparison in classing. Lectures and laboratory three hours. Prerequisites: 142, 233. Winter. Fee, \$3.00. WARE.

433. PLANT BREEDING.—The practical application of the principles of variation and heredity to the breeding of general farm crops. Special attention paid to the practical breeding of corn, cotton, small grains, and forage crops. Lectures and recitations four hours. Open to seniors only. Prerequisites: 331, 431, Genetics. Spring. WARE.

\*435. ADVANCED SOIL PHYSICS.—A study of mechanical analysis, concentration of the soil solution, soil heat, and other physical properties of the soil. Laboratory conferences, and reports. Prerequisite 233. Fall. Fee, \$3.00. SACHS.

\*437. ADVANCED SOIL FERTILITY.—A more intensive study of some of the important changes taking place in the soil, i. e., ammonification, nitrification, nitrification, sulfonation. Laboratory, conferences, and reports. Prerequisite: 346. Spring. Fee, \$4.00. SACHS.

\*444. **FIELD MANAGEMENT.**—Crop and soil adaptation, methods of tillage and their effects, effects of different types of farming. Harmful practices, balanced systems, practical rotations, use of legumes, manures, composts, and commercial fertilizers in general farm practice. Soil preservation and reclamation, corrective measures, prevention of erosion, effects of and disposal of surplus moisture, weed eradication, significance of seed selection, improved varieties, and seed breeding. Fall. Open to seniors. NELSON.

\*421, 422, 423. **RESEARCH.**—Research work in special problems designed for advanced and graduate students. One to three hours a week. Fee, \$1.00 to \$3.00 a term, according to number of hours taken. NELSON.

### *ANIMAL HUSBANDRY AND DAIRYING*

PROFESSOR DVORACHEK, ASSISTANT PROFESSOR MASON, ASSISTANT PROFESSOR STOUT, ASSISTANT PROFESSOR REED, ASSISTANT PROFESSOR HUNT, MR. WILBANKS

The live stock and poultry owned by the department are used to familiarize the student with the various types and breeds. Students interested in dairying have an opportunity to study the operations in a commercial creamery run by the department.

131. **FARM POULTRY CULTURE.**—The principles of the following subjects in the order given: Breeds, housing, feeding, breeding, incubation, brooding, poultry products, diseases management, and marketing. Lectures and recitations three hours. No prerequisites. Fall. STOUT.

231. **FARM DAIRYING.**—The composition of milk, causes of variation in composition, abnormal milk and its causes, bacteria in milk products, the lactometer, Babcock testing, milk separation, farm butter making, handling dairy products on the farm, and marketing dairy products. Lectures and recitations one hour, laboratory six hours. Prerequisites: Chem. 141-143. Winter. Fee, \$3.00. MASON, WILBANKS.

232. **JUDGING TYPES AND MARKET CLASSES.**—Practice in scoring types and market classes of sheep, swine, cattle, and horses, using the score card, followed by comparative judging. Emphasis given standardization and grading in marketing live stock. Lectures and recitations one hour, laboratory six hours. No prerequisites. Spring. DVORACHEK, REED, HUNT.

351. **HISTORY OF BREEDS AND PEDIGREES.**—The origin, history, development, breed characteristics, and adaptation of the more important breeds of horses, beef cattle, dairy cattle, swine, and sheep. Pedigree work with prominent individuals of the various breeds. Prerequisite: 232. Fall. DVORACHEK, REED, HUNT.

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\*For advanced students and graduates.



352. **FEEDS AND FEEDING.**—The principles of animal nutrition, digestibility of feeds, composition, value, and preparation of feeds; use of silos; selection of feeds for balanced rations, and the economical feeding of all classes of farm animals. Prerequisites: Ag. Chem. 241 or Chem. 242. Winter. DVORACHEK.

331. **ANIMAL BREEDING.**—The principles and the various systems of animal breeding; the application of the principles of genetics to practical animal breeding. Prerequisite: Genetics Bot. 341. Spring. HUNT.

321. **JUDGING BREED TYPES OF SHEEP AND SWINE.**—Scoring and comparative judging of breed types of sheep and swine. Breed characteristics given special attention. Animals from the college herds supplemented by livestock owned by neighboring breeders used for class work. Laboratory six hours. Prerequisites: 232, 351. Winter. HUNT.

322. **JUDGING BREED TYPES OF BEEF CATTLE AND HORSES.**—Scoring and comparative judging of breed types of beef cattle and horses. Breed characteristics given special attention. Animals from the college herds, supplemented by livestock owned by neighboring breeders used for class work. Laboratory six hours. Prerequisites: 232, 351. Spring. REED.

323. **POULTRY JUDGING.**—Scoring, and judging by comparison standard breeds and varieties of poultry for show room and utility. Birds from the college flocks and those entered in the Arkansas State Egg Laying Contest used for class work. Laboratory six hours. Prerequisite: 131. Winter. STOUT.

333. **DAIRY STOCK JUDGING.**—Scoring and comparative judging of breed types of dairy cattle. Classification of animals in the show ring. Required of students competing for place on dairy judging team. Laboratory nine hours. Prerequisites: 231, 351. Spring. DVORACHEK, MASON.

341. **CREAMERY BUTTER MAKING AND ACCOUNTING.**—The principles of creamery butter making; construction, care, and equipment of creameries; methods of sampling and grading cream; pasteurizing; starter making; cream ripening; creamery accounting; creamery management; and marketing of product. Lectures and recitations two hours, laboratory six hours. Prerequisite: 231. Winter. Fee, \$3.00. MASON, WILBANKS.

430. **MEAT AND ITS BY-PRODUCTS.**—The slaughtering and dressing of meat animals; meat cutting, curing, and utilization of meat by-products. Lectures and recitations two hours, laboratory three hours. Lectures and recitations can be taken for two credits by Home Economic students. Elective only for junior and senior students. Winter. DVORACHEK.

450. **ANIMAL PRODUCTION**—A general course in the feeding, breeding, care, and management of horses, beef cattle, swine,



and sheep. The equipment necessary for practical production of animals will also be considered. Lectures and recitations four hours, laboratory three hours. Prerequisites: 351, 352, 331. Winter. REED, HUNT.

431. ADVANCED LIVE STOCK JUDGING.—Show ring judging of breed types and market classes of sheep, swine, beef cattle, and horses. Required of major students training for live stock judging contests. Laboratory nine hours. Prerequisites: 232, 351, 321, 322. Fall. REED.

432. LIVE STOCK PRACTICUMS.—Practice in the feeding, care, and management of live stock. Designed to train students in the handling of live stock on the farm and in the show ring. Laboratory nine hours. Prerequisites: 351, 352, 331. Fall. REED.

433. PORK PRODUCTION.—An advanced course in pork production and marketing from the standpoint of both the farmer and the special breeder. Problems assigned in management, supplemented by collateral reading of experimental data. Lectures and recitations three hours. Elective only for major and graduate students. Winter. HUNT.

434. HORSE PRODUCTION.—An advanced course in horse production and marketing from the standpoint of both the farmer and the special breeder. Problems assigned in management, supplemented by collateral reading of experimental data. Lectures and recitations three hours. Elective only for major and graduate students. Winter. REED.

435. POULTRY PRODUCTION.—An advanced course in poultry production. Practical work in incubation, brooding, chick raising, and flock management. Lectures and recitations one hour. Laboratory six hours. Prerequisite: 131. Spring. Fee, \$3.00. STOUT.

436. BEEF PRODUCTION.—An advanced course in beef production and marketing from the standpoint of both the farmer and the special breeder. Problems assigned in management, supplemented by collateral reading of experimental data. Lectures and recitations three hours. Elective only for major and graduate students. Winter. REED.

437. MILK PRODUCTION.—Dairy farm management and the marketing of dairy farm products, from the standpoint of both the farmer and the special dairyman. Problems assigned in management, supplemented by collateral reading of experimental data. Lectures and recitations three hours. Elective only for major and graduate students. Fall. DVORACHEK.

438. MUTTON AND WOOL PRODUCTION.—An advanced course in mutton and wool production, from the standpoint both of the farmer and the special breeder. Problems assigned in manage-

ment, supplemented by collateral reading of experimental data. Lectures and recitations three hours. Elective only for major and graduate students. Spring. HUNN.

439. ICE CREAM AND CHEESE MAKING.—Ice cream and ices. Preparation of materials used in their manufacture for home use and sale. Various kinds of cheeses. Cheddar cheese making and curing for home use and sale. The commercial manufacture of ice cream and cheddar cheese for retail and wholesale trade. Lectures and recitations one hour, laboratory six hours. Prerequisites: 231, 341. Fall. Fee, \$3.00. MASON, WILBANKS.

420. HANDLING POULTRY AND EGGS FOR MARKET.—Poultry fattening, dressing, storage, and shipping. Egg candling, storage, grading, packing, and handling for market. Lectures and recitations two hours. Prerequisite: 131. Fall. STOUT.

421. MARKET MILK AND DAIRY INSPECTION.—Different classes of market milk, transportation, storage, marketing, and accounting. Practice in the use of score cards for inspecting milk plants, dairy farms, and creameries. Lectures and recitations one hour, laboratory three hours. Prerequisites: 231, Bact. 351. Spring. MASON.

422. JUDGING DAIRY PRODUCTS.—Judging market milk, butter, cheese, and other dairy products. Laboratory six hours. Prerequisite 231. Spring. Fee, \$3.00. MASON, WILBANKS.

423 (424) (425). ANIMAL HUSBANDRY AND DAIRY RESEARCH.—Senior students majoring in Animal Husbandry or Dairying, and graduate students may, with the consent of their major professor, elect this course. Special problems assigned. Not more than two credits a term allowed. DVORACHEK.

## BACTERIOLOGY AND PATHOLOGY

PROFESSOR BLEECKER

The courses in bacteriology are so arranged as to give the student an understanding of the morphology, distribution, and physiological activities of microorganisms and their economic relation to agriculture and the home, including sanitation and public health.

351. GENERAL BACTERIOLOGY.—Elementary bacteriology so designed as to give the student an understanding of the morphology, classification, and physiological activities of bacteria. Recitation three hours and laboratory six hours a week. Prerequisites: Chemistry, 242; Botany, 141 and 142. Spring. Fee, \$3.00. BLEECKER.

342. HOUSEHOLD BACTERIOLOGY.—Introductory study of the morphology, classification, and physiological activities of bacteria, yeasts, and molds is followed by a study of sanitation and the relation of these microorganisms to the home. Recitation two

hours and laboratory six hours a week. Prerequisites: Chemistry 242, Zoology 241, or Botany 141. Fall term of odd years. Fee, \$3.00. BLEECKER.

543. AGRICULTURAL BACTERIOLOGY.—The bacteria of the soil and water, and those of milk and milk products. Recitation two hours and laboratory four hours a week. Prerequisites: Bacteriology 351 or 342. Winter. Fee, \$5.00. BLEECKER.

544. PATHOGENIC MICROBIOLOGY.—Disease producing microorganisms, the diseases they produce, their dissemination and control. Recitation two hours and laboratory four hours a week. Prerequisites: Bacteriology 351 or 342. Winter. Fee, \$5.00. BLEECKER.

### ENTOMOLOGY

PROFESSOR BAERG, ASSOCIATE PROFESSOR ISELY.

The courses offered in entomology are intended to give the student an understanding of the general principles underlying insect life; of the life economy of the more beneficial as well as the more injurious species; and of the fundamental facts governing the control of insect pests.

151. GENERAL ENTOMOLOGY.—Introductory study of the morphology, life history, and classification of insects and their near relatives. Lectures, three hours a week; laboratory, four hours. Credit: five hours. Prerequisite: None. Winter. Fee, \$2.50. BAERG.

252. ECONOMIC ENTOMOLOGY.—Begins with a brief introduction to the study of insects as a class; includes the common pests of farm, garden, and orchard, as well as the common insect parasites of domestic animals. Lectures three hours; laboratory, six hours. Credit: five hours. Prerequisite: None. Fall. Fee, \$2.50. BAERG.

233. MORPHOLOGY OF INSECTS.—Takes up in greater detail the laboratory work of General Entomology. Must be preceded or accompanied by 151. Laboratory six hours. Credit: three hours. Fall. Fee, \$2.00. BAERG.

234. ELEMENTARY SYSTEMATIC ENTOMOLOGY.—Laboratory study of the wing venation of insects and of the important distinguishing characteristics used in classifying insects. Laboratory six hours. Credit: three hours. Prerequisite: 151 or 233. Winter. Fee, \$2.00. BAERG.

335. ECONOMIC ENTOMOLOGY.—Detailed study of life histories and control of the more important insects attacking field crops. Lectures and recitations, two hours; laboratory, two hours. Credit: three hours. Prerequisite: 252. Winter. Fee, \$2.00. ISELY.

336. **ECONOMIC ENTOMOLOGY.**—Detailed study of life histories and control of the more important insects attacking fruit and truck crops. Lectures and recitations, two hours; laboratory, two hours. Credit: three hours. Prerequisite: 252. Winter. Fee, \$2.00. Alternates with 335. Not given in 1922-23. ISLEY.

326. **HOUSEHOLD ENTOMOLOGY.**—Life history, habits, and control of insects injurious to the household. Lectures and recitations, two hours. Credit: two hours. Prerequisite: 151. Winter. BAERG.

338. **ADVANCED ECONOMIC ENTOMOLOGY.**—Methods of investigation in economic entomology, insectary technique, planning field experiments, analysis of experimental data. Lectures, one hour; laboratory and assigned reading, six hours. Prerequisite: 151, 252, and 335 or 336. Spring. Fee, \$2 50. ISLEY.

### HOME ECONOMICS

PROFESSOR PALMER, ASSISTANT PROFESSOR SCHMIDT, MISS GILL,  
MISS HILL, MISS NELSON, MISS ROACH

131, (132) (133). **ELEMENTARY CLOTHING.**—Designed to give skill in using and caring for sewing machines, in taking accurate measurements, and in adapting commercial patterns. The comparison and selection of materials for their appropriateness, as well as for their economic value. Lecture one hour and laboratory five hours per week. Fee, 50c each term. HILL, NELSON.

134 (135). **ADVANCED ELEMENTARY CLOTHING.**—The same as above but adapted to the needs of students offering an admission unit in sewing. Fee, 50c each term. NELSON.

136 (137) (138). **FOODS.**—The principles involved in the selection and preparation of foods, with special stress on the chemistry and nutritive value of the foodstuffs. The lecture work includes manufacture and composition of commercially prepared foods; the laboratory work applies scientific principles of preparation. Lecture one hour and laboratory four hours. Parallel: Chemistry 141, 142, 143. Fee, \$5.00 each term. SCHMIDT.

221 (222) (223). **STUDY OF COSTUME.**—The principles of design and color harmony applied to costume. A short history of costume. Lecture one hour, laboratory two hours. Prerequisite: Art 134, 135, 136. Fee, \$1.00 each term. GILL.

227. **SURVEY OF HOME ECONOMICS LITERATURE.**—Lecture and recitation two hours per week. Winter. SCHMIDT.

234 (235) (236). **TEXTILES AND CLOTHING ECONOMICS.**—The source, structure, manufacture, and relative values of fibers and fabrics. The technique and principles of costume design applied in the design and construction of new and remodeled garments. The use, by each student, of patterns drafted by herself to her



own measurements. Lecture one hour, laboratory five hours a week. Prerequisites: 131, 132, 133 or 134, 135, and Art 134, 135, 136. Fee, \$1.00 each term. HILL, NELSON.

238. HEALTH AND CHILD CARE.—The fundamental principles of personal hygiene and the home care of the sick. Special consideration to the care, feeding, and training of children in the home. Lecture three hours, laboratory two hours. Spring. Fee, \$1.00. SCHMIDT.

323. ADVANCED FOOD PREPARATION.—An elective course for those who desire special training in the preparation of attractive dishes for each course in the meal. Two three-hour laboratory periods. Prerequisites: 136, 137, 138. Spring. Fee, \$5.00. SCHMIDT.

324. HOUSEHOLD PROBLEMS.—Lighting, heating, plumbing, care of equipment, and dispatching of duties in the home. A theoretical course to prepare the student for the home experience she will obtain through practice house work. Lecture two hours. Prerequisites: 136, 137, 138. SCHMIDT.

331 (332). FOOD ECONOMICS.—The food problems of the household, including food preservation, the cost and nutritive value of food materials, their combination in typical meals, the preparation and service of meals, and dietetic requirements of individual members of the family group. Lecture one hour, laboratory four hours. Prerequisites: 136, 137, 138. Fall and winter. Fee, \$5.00 each term. SCHMIDT.

334 (335) (336). DIETETICS.—The fundamental principles of human nutrition as applied to the feeding of individuals under normal conditions and under pathological conditions chiefly depending upon diet. Lecture and recitation two hours, laboratory two hours. Prerequisites: 331, 332, Zoology 241, 242 or Agri. Chem. 243. Fee, \$4.00 each term. ROACH.

337 (338). ADVANCED CLOTHING.—Principles of garment construction and tailoring and their practical application in the construction of a tailored suit or coat by each student. Additional problems involving special technique. Lecture one hour and laboratory five hours per week. Prerequisites: 234, 235, 236, 221, 222, 223. Fee, \$1.00 each term. HILL.

361. HOUSEHOLD MANAGEMENT.—The social, economic, and practical problems of home management. The laboratory work consists of the actual care of the house and the performing of all household duties such as budget making, accounting, marketing, preparation of daily meals, and a study of their dietary value and cost. Lectures and recitations two hours, laboratory as arranged. Students live in practice house one term. Prerequisites: 324, 331, 332. Fee, living expenses borne by students. SCHMIDT.

441. HOUSE PLANNING.—A study of the situation, sanitation, and construction of the house and the application of the princi-



ples of design to exteriors and cost of building and maintenance. Laboratory includes the making of floor plans and elevations. Lecture two hours. Laboratory four hours. Prerequisite: Art 134, 135, 136. Fall. Fee, 50c. GILL.

442. HOUSE FURNISHING.—The principles of design and color applied to the interior decorating and furnishing of a home; problems in costs. Lecture, two hours; laboratory, four hours. Prerequisites: Art 134, 135, 136. Winter. Fee, 50c. GILL.

443. WOMEN AND SOCIAL WORK.—A survey of the fundamental laws of heredity and environment; the relation of social conditions to morality; the relation of the home-maker to the social and political life of the community. Topics assigned. Open to seniors. Four hours a week. Prerequisites: Economics or Sociology. NELSON.

531. MILLINERY.—The designing and drafting of patterns for different types of hats, including the principles underlying their construction and trimming. A model of each type made by each student. Lecture one hour and laboratory four hours. Open to sophomores. Winter and spring. Prerequisites: 131, 132, 133 or 134, 135, and Art 134, 135, 136. Fee, \$1.00. HILL.

511 to 541. SPECIAL PROBLEMS.—The student may elect some special problem in the major subject for research. Conferences with the instructor. Open to seniors and graduate students. Fall, winter, or spring. PALMER.

For Home Economics Methods (Education 341) see College of Education.

Home projects during the summer vacation will be planned in all courses where necessary to meet individual needs.

## HORTICULTURE

PROFESSOR COOPER, ASSISTANT PROFESSOR RAPP

The courses offered in this department are designed to give the student a thorough knowledge of the principles and practices of the various phases of horticulture. The work is so arranged that it will meet the needs of students interested in its practical application, or of students who desire a technical knowledge of the subject as a preparation for college teaching, or research work.

Students who have had the necessary fundamental training in related subjects, and who desire to fit themselves for teachers or investigators, may receive employment during a part of their time in the laboratory and fields.

131. VEGETABLE GARDENING.—The general and fundamental principles of vegetable growing and the practical problems involved in handling the various crops, with special emphasis upon farm, home, and back-yard gardens. Cultural methods, with

varieties, plant growing, soils and fertilizers, insect and disease control, and harvesting. Laboratory will be devoted to seed testing, hotbed construction, plant growing, and the care of student gardens. Two hours lecture, three hours laboratory. Prerequisite: Botany 141-142. Spring. Fee, \$1.00. RAPP.

234. PRINCIPLES OF FRUIT GROWING.—The general principles involved in propagation of fruits, planning, planting, and operating home and commercial orchards. Every phase of orcharding and fruit growing and all problems confronting the practical orchardist. Actual practice in pruning, mixing, and applying sprays, and in harvesting, packing, and storing fruit. Two hours of lecture, three hours of laboratory. Prerequisites: Botany 141-142-143. Fall. Fee, \$1.00. COOPER.

237. FLORICULTURE.—Propagation, cultivation, and management of decorative and flowering plants for the house, conservatory, greenhouse, and garden. Two hours lecture, three hours laboratory. Prerequisite: Botany 141-142-143. Spring. RAPP.

238. LANDSCAPE GARDENING.—Planting materials and their arrangement in landscape gardening, with special reference to farm and city homes and school grounds. One hour of lecture, six hours of laboratory. Prerequisite: Botany 141-142-143. Winter. Fee, \$2.00. RAPP.

239. NURSERY MANAGEMENT.—General nursery practices with fruits, ornamentals, and shade and forest trees; collecting and storing seeds, cuttings, roots and plants; transplanting and field planting. One hour lecture, six hours laboratory. Prerequisites: Botany 141-142-143. Fall. COOPER, RAPP.

331. MARKET GARDENING.—The methods of growing and handling the various trucking crops of the State, such as cantaloupes, watermelons, cucumbers, tomatoes, sweet potatoes, Irish potatoes, beans, onions, etc. Fertilizers, special cultural methods, insect and disease control, harvesting, grading, packing, storage and refrigeration. Two hours lecture, three hours laboratory. Prerequisites: Botany 141-142-143, Horticulture 131. Fall. RAPP.

332. ORCHARD MANAGEMENT.—The cultural methods best adapted to different kinds of fruit, including types of soils, air and water drainage, soil fertility, fertilizers, cover and companion crops, and the theory and practice of pruning. Two hours of lecture, three hours of laboratory. Prerequisite: Horticulture 234. Winter. RAPP.

333. SMALL FRUITS.—Grapes, cane fruits, and strawberries. Conducted in such a manner that the student will have thorough knowledge of how such fruits should be handled to obtain the best results from the standpoint of both home and commercial production. Two hours of lecture, three hours of laboratory. Prerequisite: Horticulture 234. Spring. COOPER, RAPP.

334. FARM FORESTRY.—Identification of trees and woods. Woodlot management. Log scaling and estimating timber. Selecting and marking trees for thinning. Replanting. Preserving wood. Two hours lecture, three hours laboratory. Prerequisites: Botany 141-142-143, Horticulture 239. Winter. COOPER, RAPP.

335-336. SYSTEMATIC POMOLOGY.—The systematic classification, nomenclature, history, origin, and adaptability of each of the various fruits with practical work in judging. Two hours of lecture, three hours of laboratory. Prerequisites: Horticulture 234-332-333. Fall and winter. Fee, \$2.50. COOPER.

339. POTATO PRODUCTION.—Production, handling, and storage of Irish and sweet potatoes. Two hours of lecture, three hours of laboratory. Prerequisite: Horticulture 131. Spring. RAPP.

437. SPRAYING AND SPRAY MATERIALS.—Designed to give a thorough practical knowledge of insecticides and fungicides and methods of application for the control of insects and fungus diseases, together with practice in operating the various kinds of spraying machinery and equipment. Two hours of lecture, three hours of laboratory. Prerequisites: Horticulture 131-234. Spring. Fee, \$2.50. COOPER.

438. VEGETABLE FORCING.—The general and fundamental principles of vegetable forcing. Construction of forcing structures, equipment and methods of care and management. Methods of plant growing and the study of the more important forcing crops with emphasis on soils, fertilizers, special cultural methods, control of greenhouse insects and diseases, and systems of cropping. Two hours of lecture, three hours of laboratory. Prerequisites: Botany 141-142-143, Horticulture 131. Winter. RAPP.

441. HARVESTING AND REFRIGERATION.—The general principles involved in harvesting, grading, packing, storing and shipping fruits for market. Methods of handling different kinds of fruit and all of the operations concerned. Storage, refrigeration and transportation. Different orchards, packing houses, storage houses, and loading stations, will be visited, and construction, operation, and methods studied. Two hours lecture, six hours laboratory. Prerequisites: Horticulture 234, 332. Fall. Fee, \$2.50. COOPER, RAPP.

530. EVOLUTION OF CULTIVATED PLANTS AND PLANT BREEDING.—Organic evolution as applied to the modification of plants, particularly of cultivated fruits and vegetables, together with the history of the plants and a study of their environment and original habits. The application of genetics to breeding of horticultural crops. Two hours lecture, three hours laboratory. Prerequisites: Horticulture 131-234, 335-336, Botany 341. Fee, \$1.50. COOPER, RAPP.

531. FOOD PRODUCTS.—The manufacture, sale, and use of different products from horticultural crops, including cider and

vinegar making, dessication and evaporation, canning and preserving, and the manufacture of by-products. One hour of lecture, six hours of laboratory. Seniors and post-graduates. Winter. Fee, \$3.00. COOPER, RAPP.

541, 542, 543. **EXPERIMENTAL HORTICULTURE.**—Assigned problems in horticulture, under the direct supervision of the man in charge of the particular phase of work covered; assisting in the collection of data of experimental projects; and compiling data, bibliographies, etc. Laboratory problems, and work in experimental projects in the station fields, and at other points where experimental work is being conducted by the Department. Assigned only to students with sufficient fundamental preparation. Credit: 1-4 hours. COOPER, RAPP.

591. **EXPERIMENTAL HORTICULTURE.**—Same as the preceding course, but given during the summer. Credit: 1-9 hours. COOPER, RAPP.

### *PLANT PATHOLOGY*

PROFESSOR ELLIOTT, ASSOCIATE PROFESSOR ROSEN, ASSISTANT PROFESSOR CRAWFORD

The courses in Plant Pathology are designed to give the student a knowledge of the origin, causes, and methods of control of plant diseases both in practical use and as a preparation for special research work in plant pathology. The advanced courses may be elected by students choosing Plant Pathology or Botany as a major.

352. **PLANT DISEASES.**—Diseases of plants in relation to parasites and environment; conditions inducing disease, the reaction of diseased organisms, and the methods of disease control. Lectures and recitations three hours, laboratory four hours. Prerequisites: Botany 141-143. Winter. Fee, \$3.00. ELLIOTT, CRAWFORD.

442. **MORPHOLOGY OF FUNGI.**—The forms and structure of fungi. Lectures and recitations one hour, laboratory eight hours. Prerequisites: Botany 141, 213. Fall. Fee, \$3.00. ELLIOTT.

443. **POISONOUS AND EDIBLE MUSHROOMS.**—Identification and classification of fleshy fungi, with special attention to their edible and poisonous properties. Lectures and recitations one hour, laboratory eight hours. Prerequisite: Botany 141-143. Winter. Fee, \$3.00. ROSEN.

444. **DISEASES OF FOREST TREES.**—The important diseases of forest trees with special emphasis on timber rots. Lectures and recitations one hour, laboratory eight hours. Prerequisites: 352, 332. Winter. Fee, \$3.00. ELLIOTT.

435, 436, 437. **PLANT PATHOLOGY METHODS.**—The preparation of various artificial nutrient media and the technique of isolating and culturing parasitic fungi and bacteria. Emphasis placed on bacteria in relation to plant diseases. Lectures and recitations one hour, laboratory four hours. Prerequisites: 331-332, Bacteriology 351. Fee, \$2.00 each term. ELLIOTT.



536 (537) (538). **PATHOLOGICAL PLANT ANATOMY.**—The structure of diseased and dead host tissues with relation to the disease producing organism. Offered only to students who choose a major in Plant Pathology or Botany, or for graduate credit. Prerequisites: 352, 442, 443. Fee, \$3.00 each term. ELLIOTT.

\*521 (522) (523). **PLANT PATHOLOGY RESEARCH.**—A special problem to be assigned only to students who take Plant Pathology as a major. Prerequisite: 435-437. ELLIOTT.

### VETERINARY SCIENCE

ASSISTANT PROFESSOR SYFERD

341. **COMPARATIVE ANATOMY.**—To give a general idea of the development and structure of the different domesticated animals during embryonic life and until maturity, so as to understand the benefits to be derived from proper breeding and care of farm animals. Prerequisite: None. Fall. SYFERD.

332. **ANIMAL PHYSIOLOGY.**—To give a useful knowledge of the functions of the body in the various farm animals, so as to understand the benefits to be derived from the judicious application of proper breeding, feeding, and care of farm stock. Prerequisite: 341. Winter. SYFERD.

333. **ANIMAL DISEASES.**—Infectious and non-infectious diseases, their causes, symptoms, and prevention; lameness, its causes, diagnosis, prevention and cure; obstetrics; simple surgery; State and Federal live stock regulations. Prerequisites: 341 and 332. Spring. SYFERD.

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## AGRICULTURAL EXPERIMENT STATION PURPOSE

The purpose of the Experiment Station is to determine facts, work out problems, and make investigations that have a bearing upon the agriculture of the state and the country in general. The results of investigations are published in bulletin form and distributed free. All information in possession of the various departments of the institution is available to citizens of the state upon request. The farmer is in this way relieved of the time, labor, and expense involved in working out experiments for himself. He also receives the benefit of facts that only the best trained specialists are capable of determining. Practically all of the agricultural information that we possess and put into practice is based upon experiment station efforts. The results of the Experiment Station work constitute a large part of the foundation for the work of the Division of Agricultural Extension work.



## STAFF

The working staff of the Experiment Station is practically identical with the teaching force of the College of Agriculture. Members of the staff are required to do both teaching and research work in their respective fields. The work of the station is continuous throughout the year. Research work constitutes the major burden of the staff.

The *Department of Agricultural Chemistry* carries on investigations dealing with the application of chemistry to agriculture. Its laboratories are fitted with improved modern apparatus. Its principal work is concerned with the chemistry of soils, feeds, fertilizers, and the chemistry of animal nutrition.

The *Department of Agricultural Economics* is conducting investigations, in co-operation with the United States Department of Agriculture, in systems of farming in Arkansas, farm management problems in Arkansas, labor requirements for different crops, cost of production, and similar subjects. This Department was first established in 1920. As its duties increase, other work of investigational nature, including the subject of rural organization, co-operative organizations, and marketing, will be undertaken.

The *Department of Agricultural Engineering* has just been established, the Legislature providing funds for this Department for the first time. It will investigate the subject of farm machinery, farm buildings and other structures, farm motive power (including tractors, trucks, and gasoline engines), farm drainage, terracing, and other problems.

The *Department of Agronomy* carries on investigations with farm crops, testing and breeding new and pure varieties of cotton, corn, grains, grasses for hay and pasture, clovers, and other agricultural crops. It also conducts experiments in soil fertility and the management of soils for different crops. This work is carried on at the experimental farms, at the main station and the sub-station. A special feature is the work with cotton and corn at the sub-station at Scotts.

The *Department of Animal Husbandry* carries on investigations in feeding, breeding, and management of farm animals, including poultry. Well selected herds of dairy cattle, beef cattle, and hogs are maintained for this purpose. A well equipped and well stocked poultry plant is also maintained. In connection with this department, a model dairy, equipped with improved dairy machinery and laboratories, is conducted for instructional and experimental purposes.

The *Department of Bacteriology* conducts investigations and research relative to the causes and character of animal diseases and means of combating them.

The *Department of Entomology* conducts investigations in life histories of insects injurious to agriculture and methods of exterminating such insects.

The *Department of Horticulture* is equipped with grounds, machinery and laboratories suitable for conducting experiments in fruit growing and vegetable gardening. Problems of practical importance are worked upon experimentally to aid the grower in his cultural work. Variety study of fruits and vegetables, pollination of the apple, orchard fertilization, pruning, grading and packing experiments are major projects for experiments in this department.

The *Department of Plant Pathology* carries on investigations of plant diseases with reference to their nature, cause of development, and means of combating and eradicating them. The department is equipped with apparatus for its investigations.

The *Department of Veterinary Science* supervises state inspection for contagious diseases of animals and for the eradication of cattle tick. It operates the state serum plant and supplies serum at cost; it investigates also the best means of prevention and control of diseases of animals.

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## AGRICULTURAL EXTENSION DIVISION

M. T. PAYNE, *Director.*

R. L. FOSTER, *Editor.*

### COUNTY AGENT WORK

J. C. BARNETT, *District Agent*

J. E. MCKELL, *District Agent.*

H. K. THATCHER, *District Agent.*

S. P. WEIGART, *District Agent.*

FORTY-ONE COUNTY AGENTS.

### HOME DEMONSTRATION WORK

MISS CONNIE J. BONSLAGEL, *State Home Demonstration Agent.*

MISS ALICE BRIDGES, *District Agent.*

MISS SALLIE CHAMBERLAIN, *District Agent.*

MISS FRANCES COOPWOOD, *District Agent.*

MISS ELLA POSEY, *District Agent.*

THIRTY-THREE HOME DEMONSTRATION AGENTS.

## CLUB WORK

W. J. JERNIGAN, *State Boys' and Girls' Club Agent.*

## SPECIALISTS

MISS GERTRUDE CONANT, *Cookery.*

B. S. CLAYTON, *Farm Drainage.* (U. S. Dept. of Agr. co-operating.)

H. B. LANSDEN, *Poultry.*

W. H. WOODLEY, *Dairying.*

C. WOOLSEY, *Horticulture.*

A. D. MCNAIR, *Farm Management.* (U. S. Dept. of Agr. co-operating.)

TURNER WRIGHT, *Farm Agent in Marketing.* (U. S. Dept. of Agr. co-operating.) (On leave.)

T. ROY REID, *Assistant in Marketing.* (U. S. Dept. of Agr. co-operating.)

W. H. LANEY, *Assistant in Marketing.*

E. A. HODSON, *Assistant in Marketing.* (U. S. Dept. of Agr. co-operating.)

## NEGRO WORKERS

H. C. RAY, *District Agent.*

EIGHT LOCAL AGENTS.

MARY L. RAY, *District Agent.*

NINE LOCAL HOME DEMONSTRATION AGENTS.

## AGRICULTURAL EXTENSION SERVICE

PURPOSE.—The purpose of the Agricultural Extension Service is to complete the three main divisions of the College of Agriculture—resident teaching, research work, and extension work. The object of extension work is to disseminate among the people the most practical information obtainable on all subjects relating to agriculture and home economics, and to encourage the adoption by farmers of the practices recommended. One of its chief functions is to take the results of the State Experiment Station and its branches to the people and thoroughly to disseminate the information thus obtained. Agricultural Extension work deals with the problems of practical and economic production of marketing, and the organization of agriculture as a business and as a life occupation.

SOURCES OF MAINTENANCE. The Division of Agricultural Extension is supported jointly by the College of Agriculture of the University of Arkansas and the United States Department of Agriculture under the provisions of the Smith-Lever Act passed by Congress in June, 1914. In addition to the federal funds appropriated by the College of Agriculture for conducting exten-

sion work, and the state funds appropriated as an offset to the federal appropriations, the Department of Agriculture, through the State Relations Service, has allotted to the Division of Extension certain sums to be used in the furtherance of the work.

**SCOPE OF WORK.** The Division of Agricultural Extension endeavors to reach the maximum number of people throughout the state, and for that purpose several lines of activities are planned. Among these are the county agent work, the home demonstration agent work, boys' and girls' club work, home economics study clubs, farm meetings, marketing service, farmers' clubs, farm schools, cooking schools, curing and marketing meats, farm management and personal instruction on the part of specialists in the various fields of agricultural study. The basis of agricultural extension work is actual practical demonstrations, since this has been found through experience to be the most effective method. This applies also to other phases of extension work.

**COUNTY AGENTS.** The farm demonstration work is conducted through the organization of county agents, who are made responsible for the agricultural interests of the counties to which they are assigned, and whose duty it is to conduct demonstrations in the growing of the various farm crops adapted to the county, in the introduction care, and management of live stock, in farm management, in marketing, in the organization of community clubs for the promotion of community betterment work, in conducting boys' corn, cotton, peanut, and pig clubs, and for the giving of instruction in any other way advisable and effective in their counties.

**COUNTY HOME DEMONSTRATION AGENTS.** For this work, women trained in home economics and with ability in dealing with household problems and matters affecting the home, are employed, according to the plan of the county agent's work. Their duties consist in giving instruction in those things pertaining to the welfare of the home. They organize girls' tomato and garden clubs, teach women and girls to can fruits and vegetables, organize women's home demonstration clubs, and through these organizations teach the best methods pertaining to home work. Their entire work looks to the welfare of the homemakers through giving instruction in good housekeeping.

Two-day cooking schools in home economics, where instruction in matters of great importance to the housekeeper is given, are held by specialists in this field. These schools are available to any community in the state upon request.

**BOYS' AND GIRLS' CLUB.** Specialists in club work are provided for the proper supervision of the boys' and girls' club work and to assist the county agents and home demonstration agents in organizing and properly developing this work. This service is designed to teach boys and girls the simplicity of ways of im-

proving the farm and home, to open up to them a brighter view of the future, and to inspire them with the desire to remain on the farm and develop it to its fullest possibilities. This may be classed as the initial step in the teaching of agriculture in that it reaches boys and girls between the ages of ten and eighteen, before they have had the opportunity to secure such training in the schools and colleges.

**SPECIALISTS.** The county agents and home demonstration agents are required to serve the people on all problems, and their training, therefore, must be general. Since this prohibits a high degree of specialization, it is necessary to supply assistance through men trained in more highly specialized fields. This service to the county agents is necessary to enable them to handle some of the more difficult problems of their counties. Specialists, therefore, are supplied in livestock, soils and crops, horticulture and home economics.

**FARMERS' MEETINGS.** In season it is intended that the extension service through farmers' meetings shall reach every county in the state. Special campaigns along lines of greatest importance are organized and promoted in season. This work is pushed at times when farm work is the lightest.

**MARKETING SERVICE.** In co-operation with the Office of Markets and Rural Organization, a specialist in marketing is provided to assist farmers in securing markets for their products. This service is designed to bring the producer and the buyer into touch with each other, but the Division of Extension takes no further part in consummating sales. The marketing service goes further in that it encourages the organization of groups of farmers for the production of various products in carload lots, and gives instruction in the proper grading and packing of fruits and other farm products. During the fall, special assistance is detailed by the Office of Markets for the purpose of grading and classifying cotton for the benefit of farmers. The marketing of any farm product will be included in the activities of this sphere of extension work.

**LIVESTOCK INTRODUCTION.** Because of certain economic factors not under control, the class of livestock in Arkansas has been decidedly poor. With the control of the distributing factors, the necessity arose for the introduction of pure-bred breeding stock. The livestock specialists have turned their attention to that matter and through special organization work in many counties have introduced many carloads of good breeding stock, and through farmers' meetings, the press, and otherwise, have developed a strong sentiment in favor of this work. The boys' pig club work is one of the greatest factors in the introduction of pure-bred hogs.

**FARM MANAGEMENT.** Preliminary surveys of farms in some sections of the state have shown that the profits are far from



what they should be. Farm management studies naturally should be one of the foremost in agricultural teaching. Proper investigation of farm management conditions and the teaching of the best methods of farm management are of utmost importance. This work is provided for through the employment of a specialist in farm management.

**DRAINAGE AND TERRACING.** In co-operation with the United States Department of Agriculture, a specialist is furnished for the purpose of assisting farmers with their problems of drainage by open ditches, tile drainage, and similar methods, as well as by the direction, maintenance and handling of terraces to prevent washing of hillsides.

**AGRICULTURAL NEWS SERVICE.** Agricultural facts must be placed before the people. The co-operation of the press is utilized by supplying to the three hundred twenty-five papers of the state weekly paragraphs on better farming. Special articles dealing with seasonal topics are prepared for the county papers. Special articles for the daily papers of the state are prepared in order that facts may be brought before a large number of people. Further than this, the Division of Extension issues publications from time to time which are available to the people of the state upon application.

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## SUMMER TERM

The eleventh summer term of the University will open June 19, 1922, and close July 29, 1922.

The University Summer School has grown during recent years until last year more than seven hundred students were in attendance, which is a larger number than is found in the average summer school in the United States. The report of the United States Commissioner of Education shows that the cost of attending the session was only slightly more than two-thirds the cost of attending such a summer session in the average school of like grade.

Courses in preparatory and college subjects will be offered by a faculty composed almost wholly either of heads of departments in the various faculties of the University or of experts of recognized ability from other states. A model school will be conducted for the demonstration of the best methods of teaching in the primary and grammar grades. The University Training High School will be in session and will be in the hands of some of the best superintendents of schools in Arkansas. One unit of entrance credit may be secured by attending the summer school. A limited amount of practice teaching can be done. Several experts in Rural School Methods and Management, Plays and Games, Public School Music, Industrial Work for the

Grades, and other such courses have been secured so that the University will offer a number of complete courses especially designed to meet the needs of rural teachers.

Courses completed in the summer term will be credited toward a degree, providing that entrance requirements have been met. Ten term hours is the maximum that may be earned at any one session. It should be noted that by attending several summer terms a student's college course may be shortened to three or three and a half years.

Courses for freshmen in all of the four colleges of the University (Arts and Sciences, Agriculture, Education, or Engineering), will be offered, and graduates of high schools are particularly urged to begin their college work in June instead of September. Courses will be offered this summer in all three phases of Smith-Hughes work in vocational education, namely, in agriculture, home economics, and in industrial arts.

All the facilities of the College of Agriculture and of the state experiment station are open to the Smith-Hughes men in agricultural education, and all the men teaching these courses in the high schools of the state are required to attend by the federal government.

Each year sees an increasing number of courses offered for graduate study. Several students have completed the required work for their Master's degree by summer work.

During Schoolmen's Week, in the latter part of the Summer School, it is the custom of the superintendents and principals from all parts of Arkansas to gather at the University for a study of their own peculiar problems, at which time they are addressed by some of the leading school specialists of the country, brought here by the University.

More detailed information in regard to the courses offered, matriculation and registration, may be had from the Summer Term Bulletin, which will be sent upon request. Address requests for information to the Registrar, University of Arkansas, Fayetteville, Arkansas.

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## SCHOOL OF MEDICINE

### HISTORY

The School of Medicine was organized at Little Rock in 1879. In 1911 it was consolidated with the College of Physicians and Surgeons, and by an Act of the general assembly became the School of Medicine of the University of Arkansas.

### ADMISSION

Admission requires a four-year high school education, and, in addition, two years of college work as set forth below.

## HIGH SCHOOL REQUIREMENTS

Four years' work in an accredited high school or its full equivalent, comprising not less than fifteen Carnegie units\* in acceptable subjects, including prescribed work as follows:

English .....	3 units
Algebra .....	1 unit
Plane Geometry .....	1 unit
Latin, Greek, French, German or other foreign language..	2 units (both units in the same language).
History .....	1 unit
Electives .....	7 units
<b>Total.....</b>	<b>15 units</b>

Deficiencies in any of the above described high school work may be made up by extra college work in the same subjects.

## COLLEGIATE REQUIREMENTS

Two years' work in a recognized college or university, comprising not less than sixty semester hours†, including prescribed subjects, as follows:

Chemistry (See Note A).....	12 semester hours‡		
Physics (See Note B).....	8	"	"
Biology (See Note C).....	8	"	"
English (See Note D).....	6	"	"
Electives (See Notes E and F).....	26	"	"
<b>Total.....</b>	<b>60</b>	<b>"</b>	<b>"</b>

NOTE A. CHEMISTRY.—Of the twelve hours at least eight semester hours must be in general inorganic chemistry, and at least four semester hours must be laboratory work. The remainder must include some organic chemistry.

NOTE B. PHYSICS.—At least two of these eight semester hours must consist of laboratory work. It is recommended that this course be preceded by a term in trigonometry.

NOTE C. BIOLOGY.—At least four of the eight semester hours must be laboratory work. This requirement may be satisfied by eight semester hours in either general biology or zoology, or by courses of four semester hours each in zoology and botany; but not by work in botany alone.

\* A unit in a subject is the credit value of work in that subject for four recitation periods per week for thirty-six weeks. Each recitation period must be at least forty minutes in length.

† A semester hour is the work represented by one class period per week for half of the college year (at least thirty-two weeks). Each laboratory period to be so evaluated must extend over at least two hours.

NOTE D. ENGLISH.—The usual introductory college course of six semester hours in English composition and literature or its equivalent is required.

NOTE E. FRENCH, SPANISH, ITALIAN OR GERMAN.—French is preferred, and students are strongly urged to secure a reading knowledge of this language. This will ordinarily require at least two years' work in the high school, followed by at least six semester hours' work in the same language in college, or two years' work (at least twelve semester hours) if the language was not begun in the high school.

NOTE F. ELECTIVES.—As desirable electives, the following subjects are suggested: Additional English; chemistry; zoology; psychology; an additional modern language; economics; college algebra, and trigonometry; sociology; history; political science; logic; Latin; Greek; drawing

### CONDITIONS NOT PERMITTED

No substitutes are allowed for the above prescribed subjects.

No entrance conditions are permitted.

Candidates for admission who, in June, 1922, have completed the above requirements with the exception of a few hours of college subjects, should plan to make up their deficiencies by attendance at a summer session during the summer of 1922.

### COURSE OF STUDY

The School of Medicine offers a four-year course leading to the degree of *Doctor of Medicine* (M. D.).

The candidate must meet the entrance, residence, and registration requirements; must be twenty-one years of age; and must present satisfactory evidence of good moral character. The candidate must have attended and satisfactorily completed four courses of lectures, no two of which shall have been attended in the same calendar year. Three years of the required work may have been done in some other medical college of recognized standing whose requirements are equivalent to those of this college. The senior year must be done in residence at this college.

The School of Medicine will grant the degree of *Bachelor of Science in Medicine* (B. S.) to students who have complied with the following requirements:

1. The student must have completed two full years of work leading to the bachelor's degree in the University of Arkansas or some other standard college or university, maintaining an entrance requirement of not less than fourteen standard high school units and requiring not less than sixteen hours of recitations and lectures per week in the college course.

2. The student must have included in his two years of preliminary college work on all subjects required for entrance to the first year of the School of Medicine of the University of Arkansas.

3. The student must have completed all of the work in the first two years of the medical course in the School of Medicine of the University of Arkansas.

4. This degree shall not be conferred upon any except persons who are at the present time students in the School of Medicine of the University of Arkansas or upon those who shall enter that college hereafter.

## FEEES AND EXPENSES

Tuition Fee, per annum.....\$50.00

There are no other fees, but a ten dollar deposit to cover breakage is required. After the necessary deductions, the balance of the deposit is refunded.

Board and lodging, including fuel and lights, may be had at a cost of eight to ten dollars a week, or of thirty-two to forty dollars a month.

## BUILDINGS AND EQUIPMENT

The main building, erected in 1890, is a three-story brick structure containing a lecture hall, amphitheatre, museum, dissecting room, and laboratories. A second building, occupied chiefly by laboratories, has been outgrown, and the old state capitol is used for laboratories of chemistry, embryology, histology, physiology, pathology bacteriology, clinical microscopy, surgical pathology, and pharmacology. These laboratories are well equipped with new apparatus and supplies. The space is ample and the rooms are well lighted.

## HOSPITAL AND CLINICAL FACILITIES

*Logan H. Roots Memorial Hospital.* This public city hospital was founded by the late Logan H. Roots. Closed corridors connect the hospital with the college building. The medical and surgical treatment of all cases in this hospital is now entirely controlled by the Medical School.

*Pulaski County Hospital.* This hospital is situated in the southwestern part of the city and has a capacity of two hundred beds. A feature of the hospital is the cottage treatment of tuberculosis.

The *Arkansas State Hospital for Nervous Diseases* has more than 2,200 patients that are available for teaching purposes. The institution maintains a two-hundred bed hospital for those of its inmates that are acutely ill. Nervous and mental bedside clinics are held weekly throughout the year for the senior class. An adequately equipped necropsy room is maintained in which autopsies are held.

The *Baptist General Hospital*, now under active construction, when completed will have two hundred beds. The closest connection will exist between the Medical School and the Baptist



Hospital, which will insure clinical material in this institution for teaching purposes.

*Isaac Folsom Clinic.* This clinic was named in honor of the late Dr. Isaac Folsom, in consideration of his gift of an endowment of \$20,000. This clinic is under the direct and exclusive control of the faculty, and all its material is available for teaching purposes.

*State Institutions.* All the eleemosynary institutions of the state are situated in Little Rock. These include the School for the Blind, the School for Deaf Mutes, the State Hospital for Nervous Diseases, the Penitentiary, the Reform School, County and City Hospitals, all of which contribute to the available clinical material.

## HOSPITAL APPOINTMENTS

The following hospital appointments are made annually: Logan H. Roots Memorial Hospital, two resident physicians; University Hospital, two resident physicians; Pulaski County Hospital, four internes; State Hospital for Nervous Diseases, ten internes. Appointments are made by competitive examinations open to graduates of the School of Medicine.

## ANNOUNCEMENT

For further information in regard to the School of Medicine, address the Dean of the School of Medicine, University of Arkansas, Little Rock, Arkansas.

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# AGRICULTURAL, MECHANICAL AND NORMAL SCHOOL

## HISTORY

The Agricultural, Mechanical, and Normal School is situated at Pine Bluff, Arkansas. It was established pursuant to an Act of the General Assembly of Arkansas, April 27, 1873, and has been in operation since 1875.

Its purpose is to provide industrial education and to train teachers for efficient service in the colored public schools of the state.

## BUILDINGS AND EQUIPMENT

The school property consists of twenty acres of land in the western suburbs of Pine Bluff.

The buildings include a two-story school building, containing an assembly hall, well equipped mechanical shops, a dormitory for women, a dormitory for men, a primary training school and a two-story girls' industrial building.

## ADMISSION

Candidates for admission must be at least thirteen years of age, and must pass a satisfactory examination in arithmetic, English grammar, geography, and United States History, such as is covered in the fifth grade. Those coming from other schools must furnish evidence of satisfactory deportment and class standing.

## COURSES OF STUDY

*Preparatory Department.* In the preparatory department the foundation academic subjects are studied. The work corresponds to that of the sixth, seventh, and eighth grade in the public school.

*Normal Department.* The purpose of the normal department is to prepare students for teaching. Admission is based upon the completion of the preparatory course. Students who pass the prescribed course of study satisfactorily will be awarded a teacher's certificate.

*Industrial Department.* Beginning with the second year in the preparatory department, all students are required to pursue certain industrial courses. The industrial work extends through four years, and the completion of the work is attested by a certificate of efficiency.

Young men do shop work in mechanic arts, carpentry, and cabinet making, and have the opportunity to become skilled auto mechanics, blacksmiths, machinists, engineers, or firemen.

Young women are taught plain sewing, cutting and fitting, art needlework, cooking, and millinery.

*Agricultural Department.* In this department two courses of study are offered, one designed especially for students who are preparing to teach in the public schools, and a second course, for those who wish to specialize in agriculture. The latter course includes work in agronomy, farm economics, and kindred subjects.

## FEES AND EXPENSES

Matriculation Fee (paid annually by all students).....	\$ 5.00
Entrance Fee (paid annually by all non-resident students and by all others who do not hold beneficiary appointments) .....	5.00
Dormitory Fee (including board, fuel, and light, paid by all women students at the beginning of each month).....	12.00
Student Activity Fee (paid by all students at the beginning of the year).....	1.00

Beneficiary students may be appointed by the county judge of each county in the state. Students who receive these appointments pay no entrance fee.

## ANNOUNCEMENT

For further information in regard to the Agricultural, Mechanical, and Normal School, address the Superintendent, Agricultural, Mechanical, and Normal School, Pine Bluff, Arkansas.

## DEGREES, DIPLOMAS AND CERTIFICATES---1921

## DEGREES

*MASTER OF ARTS*

Frances Tucker

*MASTER OF SCIENCE*

Newport Washington Sanford

*CIVIL ENGINEER*

Eberle U. Stevenson

*BACHELOR OF ARTS*

Effie Alley  
Quincy Dalton Adams  
Joseph Kenneth Farmer  
Charlie Vera Forrester  
Curry Bryan Freeman  
William Greene Hamilton  
Luetta Margaret Harris  
Juliet Erin Jetton  
Burton Hargrove Kinsworthy  
Jeanette Littlejohn  
Ulysses Andrew Lovell  
Josephine Elliott Martin  
Jamie McConnell

Minnie Marcille McGarry  
Robert Cecil Paslay  
Joe Travis Polk  
Vivien James Savage  
Doris Lucile Shandy  
Gilbert Y. Short  
John Frank Smith  
Alfred Roscoe Sugg  
Rachel Corrilla Thayer  
Blythe Frumm  
Mabel Webb  
Autrey Polson Wilson  
Carl Vanhorn Wilson

*BACHELOR OF SCIENCE IN EDUCATION*

Eloise Eleonora Blevins  
Gene Davidson  
James Burns Ewart  
Jessie Freyehlag  
Willis Tolbert Hall  
Jeanette Harrington  
Loretta Amelia Holland  
Sarah McGill

Sextus Durkin Mitchell  
Effie Pauline Park  
Ora Agnes Park  
William Darrell Shinn  
Lillian Vera Spikes  
Ola D. Stephenson  
Odom Farrell Sullivan

*BACHELOR OF SCIENCE IN CHEMISTRY*

James Canfield Colbert

Elmer Glenn Wakefield

*BACHELOR OF CIVIL ENGINEERING*

William Claude Gaffney  
Hugh Ralph Hays  
Joseph Dibrell Jamison  
Robert Fulton Leeper  
Hughes Machen

Fagan Barb Mason  
Jesse Burt McCaleb  
Chester Scott Parker  
Dell Cato Wilcox

*BACHELOR OF ELECTRICAL ENGINEERING*

Loy Barton  
John Clinton Black  
George Dewey Conley  
Robert Paschal Hart

Shem Ernest Hollabaugh  
George Fred Moore  
Levi Clark Starbird

*BACHELOR OF CHEMICAL ENGINEERING*

Long John Williams

Bryan Perry Paul

*BACHELOR OF MECHANICAL ENGINEERING*

Royle Wood Jacobs

John Biscoe Rogerson

*BACHELOR OF SCIENCE IN AGRICULTURE*

Henry Fred Ellison  
Ray Denison Johnston  
Ira Burton Jones  
Joseph Tate McGill

William G. Oliver  
Roy W. Roberts  
Byron T. Smith  
Ralph Webb

*BACHELOR OF SCIENCE IN HOME ECONOMICS*

Beulah Carl

Margaret Teresa Gregg

Dollie F. Randleman

CERTIFICATES

*TEACHER'S CERTIFICATE*

Mary Ella Atkinson  
Margaret A. Bates  
Edith Lois Burgess  
Edna Clark  
Mary Artie Clifton  
Gere Davidson  
Merle E. Ford  
Lela Florence Gilliam  
Mary Jane Gray  
Gertrude W. Hardeman  
Luetta Margaret Harris  
Tola Eugenia Hite

Anna Christine Joiner  
Edgar Lyday  
Ruth Camilla Matthews  
Josephine McGill  
Gerevieve B. Philbeck  
Maegeane Ruble  
Rubie Lee Smith  
Rachel Corilla Thayer  
Otis Carroll Trimble  
William Darrell Shinn  
Helen M. Waters

*TEACHER'S CERTIFICATE IN HOME ECONOMICS*

Beulah Carl

Margaret Teresa Gregg

Dollie Randleman

*DIPLOMA IN PIANOFORTE*

Mildred Gillespie

William Darrell Shinn

*CERTIFICATE IN PIANOFORTE*

Fay Kathleen Dearing  
Rebecca Henderson

Marie Taylor  
Fredia Elizabeth Williams  
Dorothy McRoy

*TWO-YEAR COURSE IN ELECTRICAL ENGINEERING*

Henry Thompson Burnam  
Edwin L. Ellison

Clen R. Murray  
William B. Mitchell

*TWO-YEAR COURSE IN STATIONARY ENGINEERING*

Jessie F. Drown

## TWO-YEAR COURSE IN TELEPHONE ENGINEERING

John H. Gibson

## HONORS

## GRADUATION HONORS

Jamie McConnell  
Robert Fulton Leeper  
Ulysses Andrew Lovell  
Josephine Martin  
Joseph Tate McGill

Ira Burton Jones  
Juliet Erin Jetton  
Jessie Freyschlag  
Ray Derison Johnston  
Loy Barton

## CLASS HONORS

Ulysses Andrew Lovell  
Jamie McConnell  
Jeanette Littlejohn  
Ira Burton Jones  
William L. Oliver  
Joseph Tate McGill  
Josephine Martin  
Robert Fulton Leeper

Ray Derison Johnston  
Levi Clark Starbird  
Blythe Trimm  
Jessie Burt McCaleb  
Royl Wood Jacobs  
Jessie Freyschlag  
Loy Barton  
Juliet Erin Jetton  
Effe Alley

## DEPARTMENTAL HONORS

## ENGLISH

Josephine Martin (first)  
Jamie McConnell (second)  
Effe Alley (third)

## HOME ECONOMICS

Margaret Teresa Gregg (first)  
ROMANCE LANGUAGES  
Mabel Webb (first)

## ECONOMICS

Ulysses Andrew Lovell

## ELECTRICAL ENGINEERING

Levi Clark Starbird (first)  
Loy Barton (second)

## GERMAN

Rachel Corrilla Thayer (first)

## ANIMAL HUSBANDRY

Ray Denison Johnston (first)  
Joseph Tate McGill (second)  
William L. Oliver (third)

## CIVIL ENGINEERING

Robert Fulton Leeper (first)

## LATIN

Juliet Erin Jetton

## MATHEMATICS

Juliet Erin Jetton (first)

## SCHOLARSHIPS

## UNIVERSITY SCHOLARS

1921-1922

Bess Akin  
Carrie Mae Burks  
Marion Wicks Cole  
William Evans Dean  
Knoble Deen  
Maude Marie Goodwin  
Clara Henry  
Helen Johnson King  
William Kirchoff  
Marie Koch  
James Prentiss Leake  
Charles Marak  
Russell McFarland  
Arthur Lee Osterman  
Ethel Owen  
Tilden Owens  
Marie Pim  
May Sensing  
Fred Sexton

Texarkana  
Monticello  
Wilson  
Portland  
Paris  
Marianna  
Lake Village  
Bentonville  
Paragould  
Carlisle  
Junction City  
Hazen  
Nashville  
Little Rock  
Monticello (Agricultural)  
Mansfield  
Nashville  
Fayetteville  
England



## DEPARTMENTAL SCHOLARS

1921-1922

Botany  
Civil Engineering  
Chemistry  
History  
College of Education  
English  
Economics and Sociology  
Mathematics  
Animal Husbandry

Lela Barton  
T. E. Alford  
Sterling Hendricks  
Robert Robinson  
J. E. Manning  
Mathilde Goodwin  
James H. Rutherford  
Davis Richardson  
Alfred C. Hale

## LIST OF STUDENTS

## GRADUATE STUDENTS

Name and Degree	Home
Armstrong, A. B., B. A., University of Arkansas.....	Wynne
Bernal, Leroy H., Ph. B., University of Chicago .....	Chicago, Ill.
Cutrell, Kate, B. S. E., University of Arkansas.....	Fayetteville
Jackson, Charlotte B., B. A., Agnes Scott College.....	Tuscumbia, Ala.
Philbeck, Genevieve B., B. A., University of Arkansas.....	Pine Bluff
Robinson, Robert Clifton, B. A., University of Arkansas .....	Wilson, Tex.
Schmitt, Ira Charles, B. A., University of Minnesota .....	Berkley, Cal.
Wells, Mabel, B. A., University of Arkansas .....	Fayetteville
Wilson, Carl Vashern, B. A., University of Arkansas .....	Fayetteville

## UNDERGRADUATE STUDENTS

## EXPLANATION OF ABBREVIATIONS

A.....	College of Arts and Sciences
Ag.....	College of Agriculture
E.....	College of Engineering
Ed.....	College of Education
F.....	Freshman
J.....	Junior
So.....	Sophomore
Sr.....	Senior
Sp.....	Special
T.....	Trade Course

Name and Course	Home Address
Abington, Tom Eugene, A-F.....	Beebe
Adams, Roy Hamilton, E-T.....	Muskogee, Okla.
Adams, Ward Hogan, A-F.....	Springdale
Agee, Harry Lee, A-F.....	Paragould
Alms, Lawrence Horton, A-F.....	Hot Springs
Akin, Bess, A-F.....	Texarkana
Albritton, Louis Elwyn, E-Sr.....	Texarkana
Alder, Louis, Ed-F.....	Greenville, Tex.
Alder, Zula, Ed-F.....	Greenville, Tex.
Alexander, Alma, Ag-Jr.....	Jonesboro
Alford, Thomas Elbert, E-Sr.....	Hot Springs
Albright, Spencer Delancey, A-Sr.....	Fayetteville
Allen, Nettie LaDelle, Ag-F.....	Little Rock
Alfred, Ernest G., E-T.....	Pittsville
Alston, Irl, E-T.....	Checotah, Okla.
Amis, William, A-Jr.....	Fordyce

Name and Course	Home Address
Anderson, Elmer John, E-So.....	Louann
Anderson, Homer Lee, A-F.....	Louann
Anderson, Loy Pinckney, A-F.....	Fayetteville
Anderson, R. Hicks, Ed-F.....	Fayetteville
Anderson, Verne Allen, E-F.....	Little Rock
Armstrong, Milton Earl, Ed-F.....	Newport
Arrington, Newt Joyce, A-F.....	Jonesboro
Arthur, Wilbur Jefferson, A-F.....	Bentonville
Askew, Benjamin Reynolds, E-Jr.....	Fayetteville
Askew, Margaret Ellen, Ed-Jr.....	Fayetteville
Atkins, Edward Carl, Ag-So.....	Chidester
Atkinson, Mary Alzira, Ed-So.....	Berryville
Ault, Dean Douglass, E-So.....	Donaldson
Baker, Aubrey V., E-So.....	Siloam Springs
Bagley, Cornelia Boles, Ed-F.....	Little Rock
Bain, Melvin Herman, E-T.....	Stacon, Tex.
Baker, Frank Tinker, Ag-Sp.....	Eureka Springs
Baker, Turner Fuller, Jr., A-Sp.....	Little Rock
Baker, Leopold Walz, A-Sp.....	Samps
Ballenger, Irby Baxter, A-F.....	Rover
Bandeem, Florence Jean, Ag-So.....	Fayetteville
Bard, Vernice, Ed-So.....	Helena, Okla.
Barkmeyer, George August, E-T.....	Greenway
Barnett, Elizabeth M., Ed-F.....	Okmulgee, Okla.
Barnett, Helen Frances, Ed-F.....	Fayetteville
Barrett, Edward Rush, A-F.....	Burney
Barrett, Irene, Ag-So.....	Hugo, Okla.
Barron, Cloma Gertrude, A-F.....	Simsboro, La.
Barrows, Ruth Jessie, Ag-F.....	Fayetteville
Bartell, Lawrence Penny, A-So.....	Wichita Falls, Tex.
Barton, Lela Viola, A-Sr.....	Fayetteville
Basore, George Marion, E-Jr.....	Berryville
Bassett, Lucy Theresa, Ed-Jr.....	Fayetteville
Bates, Margaret Amelia, Ed-Sr.....	Fayetteville
Batjer, Margaret Quay, Ag-So.....	Rogers
Baugh, William Leon, E-Sr.....	Conway
Bearnes, Anita Fern, A-F.....	Fayetteville
Beauchamp, Stonewall Jackson, Jr., A-Sr.....	Little Rock
Beck, Samuel Milton, A-F.....	Ashdown
Bell, Bunn McFaddin, A-Jr.....	Fayetteville
Bell, Vivian, E-T.....	Fayetteville
Bellingrath, Ruth, Ag-F.....	Little Rock
Bennett, Charles, A-F.....	Wichita Falls, Tex.
Bennett, Cletos Otho, E-F.....	Fayetteville
Bennett, George McPherson, A-F.....	Paris
Bennett, Joe Gordon, Ag-So.....	Paris
Bentley, Roger William, E-T.....	West Point, Miss.
Benton, Virginia Lee, Ed-So.....	Siloam Springs
Berry, Lois Katherine, Ag-So.....	Fayetteville
Berry, Homer Lester, Ed-So.....	Carlisle
Biggers, Marie, A-Sp.....	P. cabon as
Birgham, William Thomas, E-T.....	Springdale
Bishop, Eugene Clinton, Ag-Sp.....	Barber
Black, Dorothy Miller, A-Sr.....	Little Rock
Black, Lois Leslye, A-So.....	Fayetteville
Black, Norine, Ed-F.....	Boonville
Black, William Bailey, A-So.....	Fort Smith
Blackburn, Mildred, A-F.....	Prairie Grove
Blackmon, Lynn Allen, E-F.....	Fayetteville
Blair, William Adams, E-Sp.....	Ectorrise, Okla.
Blake, Joel Welborn, E-So.....	Wagoner, Okla.
Blakley, Mae Isabel, Ag-Sr.....	Hardy
Bland, Lucille, A-Jr.....	DeVall Bluff
Blankenship, Harry Samuel, A-F.....	Warren

Name and Course	Home Address
Blanshard, Virginia Mary, Ag-So	Fayetteville
Blodgett, George Frank, Ed-Jr.	Jacksonville
Boatwright, William Carl, Ag-So	Berryville
Boe, Mr. Mary Emma, Ag-F	Fort Smith
Bonds, John Young, A-So	Fort Smith
Booker, Jack Watson, E-Jr.	Fort Smith
Booker, John Robert, E-T	Forestburg, Tex.
Bossemeyer, James Lee, Ag-Jr	Fayetteville
Bowman, Claude E., E-F	Newport
Boyd, B. Degen, E-So	Hartford
Boyd, Fred, Ed-So	Tyroneza
Boyd, Macie, Ed-So	Fayetteville
Bracey, Carol Eugenia, A-F	Little Rock
Bradford, William Holli, A-So	Cabot
Brascom, Mary Esther, Ed-So	Berryville
Brasher, Beryl Hey, A-So	Houston, Tex.
Bratton, Mary Dorey, A-So	Marshall
Brewer, Joseph Edgar, E-T	Collinsville, Tex.
Brewer, William Myrtle, E-Sr	Fort Smith
Briggs, Bryant Harry, A-F	Booneville
Brook, Ezra, Ag-So	Stillwell, Okla.
Brobaugh, Katherine Virginia, A-Sp	Augusta
Brooks, Charles S., E-T	Bedias, Tex.
Brown, Alfred Thomas, A-F	Junction City
Brown, Allen Gray, A-So	Moro
Brown, Hurley Wilbert, A-F	Fayetteville
Brown, Jesse Eugene, E-T	Ravenden
Brown, John Grover, E-F	Rogers
Brown, Lucille Corinne, Ag-F	Piggott
Brown, Mazillah, Ed-So	Walnut Grove
Brown, Orbie Anderson, A-F	Amity
Brown, Paul Caylon, E-F	Piggott
Browning, Ruth Barrett, Ag-F	Piggott
Bruce, Robert Harlan, Ag-F	Piggott
Bruun, Henry Chester, E-F	Little Rock
Bryan, Sue, Ed-F	Marshall, Texas
Bryant, Grace Dorothy, Ed-So	Fayetteville
Buchanan, Katy Sue, A-F	Clovis, N. Mexico
Buchanan, Raymond Moore, E-F	Clovis, N. Mexico
Buckner, Tom R., E-T	Rochester, Tex.
Buerkle, Emma Martha, A-So	Stuttgart
Bullock, Josephine Mildred, A-F	Bentonville
Bunch, Charles Sametaz, Ag-F	Waldstein
Bunch, Mildred Van Vatterburg, Ag-F	Waldstein
Burdoo, Cecil Paul, Ed-F	Fayetteville
Burgess, James Ouitman, Ed-F	Strong
Burke, Zealia Belle, Ag-Sr	Lexington
Burks, Carrie May, Ed-F	Monticello
Burns, Coleman Dean, Ag-F	N. Y. City, N. Y.
Burrside, Frank Hunt, E-F	Hillsboro
Bushay, George Gordon, E-F	McGehee
Bvers, Uriel E., E-T	Bridgeport
Byrd, Sam, Ed-So	Burnsville, N. C.
Burnes, Homer Irving, Ag-So	Van Buren
Caldwell, Fred Seaman, Ag-F	Mansfield
Caldwell, James Fain, A-F	Little Rock
Caldwell, Jerald Glenn, E-F	Harrison
Calhoun, Zachary Hernan, Ag-Sr	N. Little Rock
Camp, Alorzo DeAllyion, A-So	Patmos
Cambell, Clement S., E-T	Houston, Tex.
Cambell, Marceline, A-So	Fayetteville
Cambell, Marion Elizabeth, A-So	Chicago, Ill.
Carl-Lee, Lottie Dale, A-Sp	Augusta
Carney, William, A-F	Rudy

Name and Course	Home Address
Carpenter, Jefferson Levy, Ed-Sp	
Carr, Robert Wheeler, E-T	
Carrick, Louise Southmayd, Ed	
Carruth, Mary Elizabeth, A-Sr.	
Carruth, Paul Fealy, Ag-F	
Carson, Jr., William Samuel, A-Jr.	Fayetteville
Carter, Claudia Heat, A-So	Fayetteville
Carter, Mildred Eugeria, Ed-So	Helena
Carter, Willard Scott, E-So	Fayetteville
Cartwright, James Williams, Ag-Sp	Oceola
Chambers, Claude Lawrence, E-T	Jack onville, Tex.
Chambless, Horace Key, E-T	Oak Grove, La.
Cherry, Blanche, A-Jr.	Paris
Childress, Rutledge Bob, E-T	Boyd, Tex.
Christian, Carroll Dodson, Ag-So	Springdale
Ciasacha, Thomas, E-T	Buffalo, N. Y.
Clardy, Chester, Ag-Sr.	Malvern
Clark, Frank Andrew, A-So	Waldo
Clark, Howard Rupert, E-Jr.	Springdale
Clark, Lake E., A-Sp	Goshen
Cleary, Ann, E-F	Texarkana, T
Clerdening, Jr., James H., A-Sp	Fort Smith
Cleveland, William Porter, E-F	Pine Bluff
Clifton, Charles Howard, E-T	Little Rock
Cobb, Jessie Ray, A-So	Fayetteville
Cochran, Henry, Ag-F	Russellville
Cockrill, Sterling Robertson, A-Sp	Little Rock
Coe, Earl Marion, A-F	Fayetteville
Coney, Ruby Frances, Ed-Jr.	Fayetteville
Coker, Fred Elbert, E-So	Motiello
Coleasure, Harry Clayton, E-T	S
Cole, Marion Wicks, A-F	
Cole, Roy Edwards, A-F	Little Rock
Coleman, Bess, A-F	Pine Bluff
Coleman, Henry Foote, E-F	Princeton
Coleman, Joe C., E-T	Mineral Springs
Coleman, Samuel Wallace, E-F	S rose
Collamore, Loftus Joseph, E-Jr.	Little Rock
Collum, Walter Cecil, Ed-Jr.	Alma
Combs, Otto Clifford, A-So	Fayetteville
Compton, John Nye, A-F	Little Rock
Conley, Kate Elizabeth, Ag-F	Paris
Cornell, DeBert Wilson, A-So	Hot Springs
Conner, Edwin B., Ag-So	Augusta
Cook, Alice Virginia, Ed-So	Fayetteville
Cook, Stanley Miles, Ag-Sp	Pine Bluff
Cook, Norris Alva, E-F	Fayetteville
Cotton, Ellen Grace, A-So	Dardanelle
Couch, Ivez Alice, Ed-Jr	Macrolia
Covey, Robert Edgar, A-F	Van Buren
Cowden, Earl Edwin, A-Jr	
Cowder, Aubrey Preston, A-F	
Cowling, William Kelley, A-F	
Cox, Crichton Dee, Ed-Sr	
Cox, Hollace Lawton, E-Jr.	
Cox, Lydia Beatrice, Ed-So	Vaie
Crabbaugh, Alfred Jackson, A-So	Bentonville
Crabb, Charles H., E-T	Colonv, Okla.
Craig, Charles B., A-F	
Cravens, Wyatt Lamar, A-So	Paris

# LIST OF STUDENTS

165

Name and Course	Home Address
Greasy, Leonard S., E-T	Dow, Okla.
Crenshaw, Alice, Ag-F	Fayetteville
Cross, M. J., Ed-F	Fort Smith
Crockett, Charles, A-Sp	Fayetteville
Cross, Frederick, E-F	Greenwood
Cross, Robert Cecil, E-So	Waldron
Crossno, Earnest D., A-Jr	Ozark
Cruce, Howard Walker, E-F	Carthage, Mo.
Cummings, Robert Paul, Ag-F	Monticello
Curringham, Joe Andrew, E-S	Springdale
Curry, Carliss Colby, A-I	Clarksville
Curtis, Harry Burns, E-I	Monticello
Cutting, Tom A., A-So	Bentonville
Dake, Emily Biddie, Ed-Sp	Fort Smith
Dale, Ethel, Ed-F	Hot Springs
Daniel, Mary Ida, A-F	Fort Smith
Daniel, Nellie May, A-F	Fayetteville
Daniels, Walter Elmer, A-Jr	Fayetteville
Davidson, Jack Marie, Ed-F	Little Rock
Davis, Anna Belle, Ed-So	Mansfield
Davis, Harkell S., A-F	Lowell
Davis, Henry Curry, Ed-I	Arma, Tex.
Davis, Jessie May, Ed-So	Foske
Davis, Leta Mozella, Ag-F	Lowell
Davis, Onal Lillian, Ag-Sr	Fayetteville
Davis, Richard Harding, A-So	Houston
Deal, Phillin Lafayette, A-F	Stamps
Deal, Preston Merrigan, Ag-F	Memphis, Tenn.
Dean, William Evans, A-S	Driver
Deason, Harriet Edith, A-I	Portland
Decker, Selva Lauree, Ed-F	Rogers
Deen, Kechle, A-F	Fayetteville
Dempsey, Silas Ezra, E-T	Paris
Dial, Chester William, Ag-Sp	Mt. Hood, Tex.
Dickson, Walter, Ed-F	Fort Smith
Dickson, Walter, Ed-F	Monticello
Dickson, Walter, Ed-F	Logview, Tex.
Dickson, Walter, Ed-F	Little Rock
Dickson, Hugh Clint, E-So	Muskogee, Okla.
Dill, Sam Loid, E-Jr	Bentonville
Dill, Sam Loid, E-Jr	Little Rock
Dixon, Marv, A-So	Pine Bluff
Dixon, Melba Elmira, Ed-Ir	Lincoln
Doering, Arrie Mae, A-So	Mansfield
Donaldson, Iov Kenneth, A-F	Delaney
Doren, Clarence Edward, E-T	Green Forest
Dorsey, H. M., A-F	Tulsa, Okla.
Doty, Hattie Mae, Ag-F	Fayetteville
Douglas, Fred Honkies, A-F	Rogers
Douglas, Henrietta, Ed-F	Bentonville
Dowd, Willie L., Ed-Sp	Springtown
Downing, Norman H., Ag-So	Prescott
Doyle, Harold Alexander, A-F	Wichita Falls, Tex.
Doxier, Charles Bingham, A-F	Piggott
Doxier, Floyd Snirey, A-F	Moro
Drexfus, Annette Marie, A-F	Moro
Duke, Luella Caswell, Ed-F	Pine Bluff
Dunbar, Edmond, Ag-Sp	Waldron
Dunay, Eva Arrington, A-F	Fayetteville
Dunay, Virginia, E-F	Marianna
Dutton, Jr., William Wallace, A-F	Marianna
DuVal, Philo Hopper, Eng-Sp	Hone
Dyer, Walter Sherman, A-So	Fort Smith
	Fayetteville



Name and Course	Home Address
Earle, John Baylis, Ag-So.....	Fayetteville
Earle, Margaret, A-So.....	Fayetteville
East, Jack, A-Jr.....	Texarkana
Edler, Charles Homer, E-T.....	New Florence, Mo.
Edwards, Frances Sue, A-Sp.....	Lonoke
Elliott, Jean, E-So.....	Lewisville
Ellis, Alma L., Ed-Sp.....	Fayetteville
Ellis, Charles Edmund, E-So.....	Rogers
Ellis, James Oliver Hurloy, E-T.....	Leshe
Ellis, Martha Belle, A-Jr.....	Fayetteville
Eva's, James Melroy, E-T.....	Osage, Okla.
Eva's, William Clarence, Ed-So.....	Atkins
Faisst, Bernard, A-F.....	Benton
Farmer, Myrtle, A-So.....	Newport
Farrior, Susie Beech, A-F.....	Summerfield, La.
Farris, Howard Carl, E-F.....	Cotter
Faubus, Ellis Jewell, E-T.....	Aurora
Feinberg, Elizabeth England, Ed-F.....	Pine Bluff
Ferguson, Dorcas Catherine, Ed-So.....	Russellville
Field, Mary Judith, A-F.....	Little Rock
Fields, Ben Wright, A-F.....	Hot Springs
Fietz, Marcus Frederick, A-F.....	Fayetteville
Fietz, Rozella Mary, Ed-So.....	Fayetteville
Files, Mabel Clair, Ed-F.....	Fayetteville
Files, Richard Malcolm, E-So.....	Itasca, Texas
Fisher, Alfred Ted, E-So.....	Rogers
Fitch, Earl Young, Ag-Jr.....	Carlisle
Fitch, Irma, Ed-F.....	Hindsville
Fitch, Larkin, Ag-So.....	Hindsville
Fitch, Margaret Corinee, Ed-F.....	Texarkana
Fleak, Mrs. Mabel, Ag-Sp.....	Fayetteville
Fleak, Roy Everett, E-F.....	Muskogee, Okla.
Fletcher, Burrell Alexander, Ag-So.....	Augusta
Fletcher, James Jefferson, A-F.....	Lonoke
Ford, David Newton, Ag-F.....	Sherrill
Ford, Forrest, Ed-F.....	Fort Smith
Ford, George Benjamin, E-F.....	Ozark
Ford, Merle Estes, Ed-Sr.....	Newport
Forgy, Percy O'dell, A-F.....	Dierks
Fourrier, Paul L., E-T.....	Quilman, Okla.
Fox, Edwin Walker, Ag-So.....	Dalton, Ky.
Frazier, Waldo, E-So.....	Ozark
Fretwell, Thomas John, E-T.....	Henrvetta, Okla.
Friend, Harold Lloyd, E-So.....	Collinsville, Okla.
Frost, Lawrence Hugh, A-F.....	Fayetteville
Fulbright, James William, A-So.....	Fayetteville
Fulcher, Joseph, A-Jr.....	Ola
Fulkerson, Stanley Dale, E-F.....	Prairie Grove
Futrell, Emily, A-F.....	Fayetteville
Futrell, Helen, A-Jr.....	Fayetteville
Gaddy, Joseph Carroll, Ag-So.....	Wilmor
Galloway, John Stanley, E-T.....	Paducah, Tex.
Gammill, Sterling Fay, E-T.....	Branch
Carder, William Wesley, E-T.....	Richmond
Cardner, Tom Sherwood, E-T.....	Marietta, Okla.
Carlington, Arthur Ree, Ag-Tr.....	Strong, Okla.
Carrett, Beatrice Serith, Ed-So.....	Van Buren
Carrison, Albert Herley, E-So.....	St Joe
Carrison, Howard Lee, A-F.....	El Dorado
Cason, Walter L., E-T.....	Warren
Catling, Mildred Earle, Ag-F.....	Bearden
Cav, Claude Ferdinand, A-Sr.....	Little Rock
Cav, Ellory Clarke, A-So.....	Little Rock
Geary, Alice Hanks, Ag-Sp.....	Henderson

# LIST OF STUDENTS

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Name and Course	Home Address
Geary, Charles Watson, Ag-F	Henderson
Gibson, Clauds Evelyn, A-F	Nashville
Gibson, Julius Cummings, A-So	Harris
Gibson, Newell Clarence, E-F	Eureka Springs
Gibbreath, C. Richard, A-Jr	Fayetteville
Gibbren, Raymond Albert, E-F	Palmer
Gillespie, Mary Louise, Ag-So	Fayetteville
Gillespie, Andrew, Ed-Jr	Fayetteville
Gilla, William Norman, E-I	De Queen
Goad, John Herman, E-F	Dallas, Tex.
Gochenour, George D., E-I	Fort Smith
Golden, Louise, Ed-F	Fort Smith
Golden, Pauline, Ed-So	Fort Smith
Goldman, Charles Toibert, E-I	Evansville
Goodwin, Ann F., A-So	El Dorado
Goodwin, Mary Langford, A-F	Parkdale
Goodwin, Mathilde, A-So	El Dorado
Goodwin, Maude Marie, A-F	Marianna
Gordon, Charles Watkins, Ed-F	Morrilton
Gordon, William Albert, E-T	Morrilton
Gore, Ulys Roy, Ag-F	Farmington
Gorum, Jack Edwin, Ag-F	Bentonville
Goudelack, Eugene F., E-F	Eureka Springs
Grabel, John Kent, E-Jr	Fayetteville
Grammer, Samuel Douglas, A-F	Bentonville
Grant, Jr., John Clarence, E-So	Fayetteville
Gray, Mary Jennie, Ed-Jr	Fayetteville
Greene, Robert Alva, A-So	Pea Ridge
Greer, Thomas Benjamin, Ag-F	Eureka Springs
Gregson, Dorothy, Ed-Jr	Fayetteville
Greig, Nita, Ed-F	Van Buren
Griffin, Imogene Gorman, A-Sp	Blytheville
Grimes, John M., E-T	Waurika, Okla.
Gugenheim, Jack Maxwell, E-F	Pine Bluff
Hack, Charles, E-T	San Antonio, Tex.
Haigwood, Hazel, A-So	Clarksville
Hale, Alfred Clay, Ag-Jr	Athens
Hale, George Albert, Ag-Jr	Prescott
Hale, Walter Samuel, Ed-F	Camden
Hall, Claris G., A-Jr	Malvern
Hall, Lewis Watson, E-So	Dardaville
Hall, Lois Jewell, A-F	Webb City
Hall, Lornie Elias, A-F	Fayetteville
Hall, Orville Jacklin, Ag-F	Springdale
Hall, Robert Norton, E-So	Eagle Mills
Hamilton, James Norman, E-F	Pine Bluff
Hamilton, James, E-So	Fayetteville
Harcock, Doy Lee, A-F	McMester, Okla.
Harey, Olin Knight, E-F	Aurora
Harks, Marion Blanche, Ag-So	Johnson
Harsard, Harry Elliott, E-Jr	Fayetteville
Harsard, Lela, A-So	Fayetteville
Hanron, Carl L., E-T	Hamburg
Hardin, Leo Jefferson, A-Jr	Grady
Harding, Arthur Leon, A-So	Fayetteville
Harding, William Brewster, A-F	Fayetteville
Harkey, Olea John, A-Jr	Ola
Harmon, James Hirt, A-So	Lamar
Harner, Clio Armitage, A-F	Little Rock
Harrington, Beth Lanore, Ag-F	Fayetteville
Harrington, Florence Almeida, Ed-Jr	Fayetteville
Harrington, Leroy L., E-Jr	Fayetteville
Harris, Elmer Ralph, E-Jr	Trumann
Harris, Fannie, Ag-F	Fayetteville

Name and Course	Home Address
Harris, John B., Ag-Sp	Greenwood
Harrison, Joseph Aaron, E-T	Springfield, Mo.
Harrison, Ralph Floyd, Ed-F	St. Louis, Mo.
Harrison, Winham Mace, E-Jr	Muskogee, Okla.
Hart, Helen, Ag-F	Fayetteville
Hart, Margaret Guthrie, A-Jr	Prescott
Hathcock, Preston Loyce, A-F	Fayetteville
Haulum, Henry Earlest, E-T	Walnut Ridge
Hawkins, Evelyn Byrd, Ed-F	Fort Smith
Hawkins, Marcus L., A-F	Parkdale
Hawn, Mary Agnes, Ed-So	Fayetteville
Hay, Mary Fossill, Ed-Sp	Hot Springs
Hayes, Joseph Edward, A-Jr	De Queen
Hayne, Robert Bracy, Ed-Jr	Prescott
Hays, Mary Elizabeth, Ed-So	Rogers
Hays, Orren Lee, A-So	St. Louis, Mo.
Head Jr., James De Kalb, A-F	Texarkana
Hebert, Joseph Louis, E-T	Texarkana
Hedgepeth, Ann Luette, Ag-Jr	Little Rock
Heerwagen, Leo Frederick, Ag-Jr	Little Rock
Heerwagen, Louis Martin, A-F	Fayetteville
Hefflinger, Eunice Witter, Ed-So	Greenland
Helfenstine, Ronald, E-T	Fort Worth, Tex.
Henbest Lloyd George, A-So	Fayetteville
Hendry, Waldersee Brazier, A-Sr	St. Louis, Mo.
Hendricks, Sterling Brown, E-Sr	Fort Smith
Henry, Brown, Ag-Sp	Russellville
Henry, Charles Doyle, E-F	Bearden
Henry, Clara, A-F	Lake Village
Henry, Robert Raymond, A-F	Bearden
Hersford, James Fletcher, E-F	Hope
Hernsberger, Carroll Gray, Ed-So	Fordyce
Herrin g, Kathleen, Ed-F	Warren
Hester, William Youg, A-So	Fort Smith
Higgs, Lida, A-Sr	Fort Worth, Tex.
Hight, Perree Brinton, Ag-1	Marble City, Okla.
Hill, Earl Alexander, E-T	Marble City, Okla.
Hillin, Sam Rubin, Ag-Sp	Dallas, Texas
Hinds, Everett Varheese, Ag-Sp	Clifty
Hinds, Hazel Stites, Ag-Jr	Fayetteville
Hires, Juanita, Ed-F	Booneville
Hire, Tola Eugeria, Ed-Jr	Biggers
Hodges, Grace Edith, Ag-Jr	Westville, Okla.
Hodgson, Blanche E., A-Sp	Fayetteville
Hoech, Charles Benjamin, Erg-So	Bearden
Holcomb, Caprice, Ag-So	Marble City, Okla.
Holcomb, John Edward, A-So	Marble City, Okla.
Holderby, Richard Henry, Ag-Jr	Newark
Holland, Beauford Ely, A-So	Pine Bluff
Holmes, Laura Sherlock, Ed-F	Camden
Hoover, Elizabeth, Ed-F	Corsica, a. Tex.
Hopkins, Charley Frank, Ag-F	Marianna
Hopkins, Tim Forrest Walton, A-Jr	Fort Smith
Horn, Mildred Margie de Coleman, Ag-Sr	De Queen
Horn, Robert Jewell, F-Sr	Beaumont
Horsfall, Frank, Ag-So	College Station
Housley, Forest L., Ed-F	Hot Springs
Houston, Carlos Neely, F-F	Little Rock
Howard, Isaac Wesley, Ed-So	Phelan
Howard, Jack Houston, E-T	Mt. Calm, Tex.
Hudgins, Helen Marberne, A-Sr	Fayetteville
Hudgins, Mary Deader, A-So	Hot Springs
Huenefeld, Erna Emilie, Ag-Sr	Greengary
Huffman, Charles Franklin, A-F	Bentonville

Name and Course	Home Address
Huggins, L. Gale, E-So	Fort Smith
Hughes, Lewis Hurley, E-So	Haynes
Hughes, Lewis Hurley, E-So	Siloam Springs
Hud, William Leland, A-So	Fort Smith
Hultsman, Juanita, A-F	Fort Smith
Husay, Lyman Theodore, A-J	Prescott
Hust, Hurley Gregg, A-Sr	El Paso, Tex
Husabett, Edgar Lee, A-So	Stamps
Irby, Freeman Buckner, A-So	Newport
Irwin, Mary Angeline, E-F	Siloam Springs
Jackson, George A., Ag-So	Monticello
Jackson, Catherine, E-F	El Dorado
Jamerson, Charles Dewey, A-Sr	Clarendon
Jamison, James Edgar, A-F	Gillham
Janes, Hazel Thelma, Ed-F	Paris
Jarrett, Taylor Edward, A-I	Heber Springs
Jenery, Vogel Joseph, Ed-Jr	Fort Smith
Jeter, Winston Leroy, A-F	Jonesboro
Joblin, Margaret Aileen, A-F	Porter, Okla.
Joerden, Russell Howard, E-Sr	Pine Bluff
Johns, Vestal Gladys, A-Jr	Paris
Johnson, Charles Edgar, E-Sr	Foreman
Johnson, Eva Stuart, A-Jr	Ashdown
Johnson, Florence Wealthy, Ag-F	Fayetteville
Johnson, Mrs. Kepler, Ag-Sp	Little Rock
Johnson, Marvin Dickson, Ag-Sr	Waldo
Johnson, Mary Elior, Ag-Sr	Highfill
Johnson, Maurine Mildred, Ed-F	Foreman
Johnson, Oliver Kepler, E-F	Fayetteville
Johnson, Rupert Price, E-So	Fayetteville
Johnson, Alma Christine, E-Sr	Magolia
Jones, Jewell Edith, Ed-So	Siloam Springs
Jones, Margaret, Ed-F	Fayetteville
Jones, Noel, E-F	Scranton
Jordan, Helen, Ed-So	Fayetteville
Jordan, Thomas Elmer, A-So	Prescott
Jordan, Harold Rex, A-F	Fayetteville
Jordan, Helen, Ed-So	Prescott
Jordan, Susan, E-Sr	Pachua, Mex.
Jordy, Linda, E-Sr	Waldron
Jarvis, Melva, Ed-Sp	West Fork
Karter, Mae Josephine, Ed-So	Fayetteville
Karr, David Lowndes, E-T	Wister, Okla.
Kchoe, Arthur Luke, E-T	Arkansas Pass, Tex.
Kelley, Doreen, Ag-F	Fort Smith
Kelley, Parsy B., Ag-So	Eureka Springs
Kemp, Robert, E-T	Sherman, Tex.
Kemper, Willis T., Ag-So	Siloam Springs
Kemp, Clara Bernice, E-F	Rogers
Kemp, Mary Elmer, E-Sr	Fayetteville
Kemp, Susan, E-Sr	Hope
Kerr, Olive May, Ag-So	Fayetteville
Kiker, Russell L., E-Sp	Fayetteville
Kilbourn, Garland Rex, E-Jr	Ben'sonville
Killian, Mary Lynn, Ed-So	Monticello
Kimbrell, Jason Paul, A-F	Fayetteville
Kimbrough, Felix Albert, A-Jr	Cincinnati
Kinard, Harvey Earl, A-F	Junction City
King, C. M., Eng-So	Stuttgart
King, Helen Johnson, A-F	Bentonville
King, Raleigh, A-So	Homer, La.
Kingsbury, Thomas Dwight, E-F	Fort Smith
Kirchoff, William F., A-Sp	Paragould
Kirkpatrick, Insley Johnson, Ag-Sp	Summers

Name and Course	Home Address
Kitchens, Bert, A-Sp	Waldo
Kitchens, Margaret Thelma, Ed-So	Maguoha
Kerr, Dorothy Dee, Ed-Jr	Fayetteville
Koch, Marie, Ed-F	Carlisle
Kroenke, Alvin Jessie, E-T	Fairland, Okla.
Kuhleit, Clara Mae, A-Jr	Independence, Kan.
Kuykendall, L. Roy, E-So	Little Rock
Kuykendall, J. Ray, E-So	Fayetteville
Kyler, Elmo Knox, E-F	Stuttgart
Lamb, Marion, E-So	Little Rock
Lambert, Katherine, Ed-Sp	West Fork
Land, Paul Frank, A-F	Fort Smith
Lange, Kay Truthman, A-F	Little Rock
Laid, Ruth, Ed-Sp	Fayetteville
Latimer, Farris Newton, A-So	Corning
Law, Wilson A., Ed-F	De Witt
Lawson, Marvin, Ed-F	Imboden
Leake, James Prentiss, A-F	Junction City
Ledgerwood, Violet, A-Sp	Paris
Leflar, Robert Allan, A-Sr	Siloam Springs
Lefors, William McKinley, Ag-Jr	Centry
Lemmon Jr., Robert Wayles, A-Jr	Alzheimer
Lewis, Elmer, E-T	Hogden, Okla.
Lewis, Frances Claire, A-Sr	Fayetteville
Lewis, George Henry, E-T	Amorilla, Tex.
Lewis, Helen Catherine, A-So	Fayetteville
Liebolt, Frederick L., A-F	Fayetteville
Liebolt, Weldon Swigert, A-F	Fayetteville
Lincoln, Benjamin Applin, Ag-Jr	Van Buren
Lincoln, Bert Hartzell, A-Jr	Van Buren
Lirder, John, A-F	Little Rock
Lindsey, Frances Pierce, Ed-F	Portland
Lirdsey, Joe Truman, A-F	Pine Bluff
Little, Marshall Manvil, Ed-So	Little Rock
Littleton, Ralph Braton, A-F	Ozark
Lively, Ralph Eugene, E-T	Marmaduke
Lloyd, James Turner, A-F	Little Rock
Lovell, Eunice Beatrice, Ed-So	Springdale
Lovell, Lasco Cairns, E-So	Springdale
Lowe, Roy Ellis, E-Sp	Greenwood
Lowrance, Earl D., A-F	Hot Springs
Lowry, Wallace E., A-F	Wichita Falls, Tex.
Lucas, Guy Walter, A-So	Fayetteville
Lyles, John Stephen, E-F	Wagoner, Okla.
Lynn, Joseph William, E-T	Bentonville
Lyon, William Alexander, A-Jr	Camden
Mac Dougall, Frances, A-So	Forrest City
Madder, Henry Otto, E-T	Decatur, Tex.
Magers, Raymond Gabriel, E-T	Murchison, Tex.
Magness, Guy Norton, Ed-So	Lead Hill
Mahaffey, Grace Ula, Ed-So	Fayetteville
Maier Jr., James Imery, A-So	Fort Smith
Malone, Mora Gradyne, Ed-So	Waldron
Manning, James Benjamin, A-F	England
Manning, John Eber, Ed-Jr	Havnes
Manning, William Henry, E-T	Brownwood, Tex.
Manles, Joe, Ed-F	Berryville
Marak, Charles Tom, E-F	Hazen
Martin, Annlea, A-So	Hindsville
Martin, Curry Walter, E-F	Newport
Martin, Gilbert Henry, A-F	Pine Bluff
Martin, Katie Alline, A-F	El Dorado
Martindale, James Cossett, A-F	Hone
Mason, Arthur Dixon, A-Jr	Fort Smith



Name and Course	Home Address
Mason, Perry Wilbur, E-So	Fisher
Mason, Ruric Com, E-So	DeLoeville
Masthews Jr., Charlie Marvin, E-Jr	Lake Village
Masthews, Terry Eugene, A-F	Canco Rock
Masthews, Robert Alan, E-F	Marven
Maxwell, Charles Turner, A-So	Oscola
Maxwell, Dwight Camoun, A-So	Little Rock
Maxwell, Clauds, A-F	Beltonville
May, George, E-F	Los Angeles, Cal.
Mayo, Luis Alma, Ed-F	Winton, Okla.
McAdams, William Benton, E-1	Oranias
McAdams, Claude, E-So	Muskogee, Okla.
McAdams, Marguerite Hammond, A-Sp	Fayetteville
McAlister, Ma, Ag-So	Fayetteville
McCam, Hugh Mark, E-F	College Station
McCarry, George Philip, E-T	Dierks
McCatherine, Lucina, Ag-F	Fayetteville
McCauley, Olie Mitchell, Ag-F	Itasca
McCloy, Clifford E., A-So	Aloncello
McConach, Carrick Lin, Ag-So	Lincoln
McConkey, Homer Valentine, A-F	Wicita Falls, Tex.
McCowen, Mrs. George B., Ag-Sp	Fayetteville
McCullough, William Glenn, A-F	Paris, Tex.
McDaniel, Aubrey, E-F	Fayetteville
McDaniel, Calvin Hartin, E-Sr.	Attag, Okla
McDonald, Dehalb Lafayette, A-F	Junction City
McDonald, Louis Calvin, E-1	Vinita, Okla.
McDowell, Harry Bourne, E-Jr	Little Rock
McFarland, Tillman Russell, E-F	Nashville
McGee, Borden Matthew, E-So	Hardy, Tex.
McGuill, Annie Scott, Ag-F	Chidester
McGuire, John Clifford, A-F	Piggott
McHenry, Alice Elizabeth, A-So	El Dorado
McHenry, Estelle, A-So	El Dorado
McIlrath, Mrs. Maud, Ag-Sp	Egypt
McKenzie, Arthur Ray, Ed-So	Boonville
McKinnies, Henry Herman, Eng-Jr	Paragould
McKissack, Gordon Russell, E-T	James, Tex.
McLeod, Mary Louise, A-F	Warren
McMullin, Harry Logan, E-Jr	Marble City, Okla.
McNabb, Helen Lucile, Ag-F	Fayetteville
McNair, Alice Elizabeth, A-So	Fayetteville
McNutt, James Luther, E-T	Arkadelphia
Meier, Martha Marie, Ag-F	Van Buren
Mellor, Grace Elizabeth, A-Jr	El Dorado
Merrill, Lela Marie, A-Sp	Muskogee, Okla.
Mhoon, Raymond Andrew, A-F	Fayetteville
Milburn, Frank Herbert, A-F	Fayetteville
Miles, Fanning Cockrill, A-So	Booneville
Miles, Josephine Elizabeth, A-So	Little Rock
Milliken, Alice Forbes, Ed-So	Little Rock
Millwee, Miror Wallace, A-So	Horatio
Minnis, Hal Fletcher, E-Sr.	Roe
Minris, Jewell Aliene, Ag-So	Roe
Mitchamore, Clarence E., E-T	Brenham, Tex.
Mitchell, Clarence David, E-T	Houston, Tex.
Mobley, John Edward, A-F	Piggott
Moody, Terry Weaver, E-T	De Omen
Moon, Charles Ray, A-So	Nashville
Moore, Berry Lee, A-F	El Dorado
Moore, Delphine LaVerne, Ed-So	Fayetteville
Moore, John David, A-So	Huntington
Moore, Leone, Ed-Jr	Fayetteville
Moore, Nannie Maude, Ed-F	Clarksville

Name and Course	Home Address
Moore, Thomas Lafayette, E-T.....	Floresville, Tex.
Morgan, David Chester, Ed-F.....	..... Camden
Morgan, Herbert, E-T.....	..... Fayetteville
Morris, Hazel, A-F.....	..... Newport
Morris, Truman Nicholas, A-St.....	..... Marshall Springs
Morrison, Mary Irene, Ed-So.....	..... Fort Smith
Morrow, James Keith, Ed-F.....	..... Cotter
Mosley, Mark Kimbrough, E-T.....	..... Toxey
Mulholland, Wesley Wayne, A-F.....	..... Fort Smith
Mulrenn, Cass, E-Jr.....	..... Fayetteville
Mulrenn, Mary Cecelia, A-Jr.....	..... Fayetteville
Musselman, Glenn Emmett, E-F.....	..... Eureka Springs
Nail, John D., Ag-So.....	..... Beece
Neal, William Edward, E-T.....	..... Holly Grove
Neck, Theodore Wynnham, E-T.....	..... Miami, Okla.
Nelms, Dan, ie, Ag-F.....	..... El Dorado
Nettleship, Thelma Earlestone, Ed-F.....	..... Fayetteville
Newell, Wesley Bird, E-T.....	..... Dallas, Tex.
Newham Jr., Charles Clifton, E-So.....	..... Little Rock
Newham, Ruth Virginia, A-F.....	..... Little Rock
Newton, Lytle Jefferson, Eng-Sp.....	..... Jackson, Tenn.
Nichols, Earl Greer, A-So.....	..... Ozark
Nimmo, Elyria Gladys, Ed-F.....	..... Mountain Home
Nixon, Monte John, A-F.....	..... Ozark
Nixon, Otis H., A-Sp.....	..... Pine Bluff
Norbury, Joe Bradford, A-So.....	..... Fayetteville
Norman, Allen Edward, A-So.....	..... Van Buren
Oakes, Algie Edgar, E-T.....	..... Bentonville
Oakley, Francile Battenberg, A-So.....	..... Rogers
Oakley, John Ferdinand, A-So.....	..... Fayetteville
Oakley, Margaret, Ag-So.....	..... Fayetteville
O'Kelly, R. Edwin, A-Jr.....	..... Blue Mountain
O'Neal, Frank Augusta, Ag-Sp.....	..... Pine Bluff
O'Neal, James Russell, A-F.....	..... Little Rock
Osborn, Charles Alexander, E-T.....	..... Camden, Ark., Tex.
Osburn, William C. Alexander, A-So.....	..... Malvern, Tex.
Osterman, Arthur Lee, A-F.....	..... Malvern
Owen, Horace Lidden, A-F.....	..... Malvern
Owen, Nancy Ethel, Ag-So.....	..... Rest
Paddock, Charles Samuel, A-F.....	..... Fayetteville
Paddock, Mary Grace, Ed-Jr.....	..... Fayetteville
Paine, Paul Adkins, E-T.....	..... Van Buren
Paisley, William Merrill, A-F.....	..... Fayetteville
Palmer, Charles Edwin, A-So.....	..... Verona, Pa.
Parich, David Dane, A-F.....	..... Marietta
Parkhurst, Homer Searl, E-T.....	..... Lafayette, Tex.
Paris, Ray H., E-T.....	..... Mena
Park, Lyndon Elizabeth, A-Jr.....	..... Mena
Parke, Frank Herbert, A-So.....	..... Little Rock
Parker, Sarah Frances, Ag-F.....	..... Fayetteville
Parker, Mary Leba, Ed-So.....	..... Fort Smith
Parker, Warda Beatrice, Ed-So.....	..... Fort Smith
Parker, William M., A-F.....	..... Fayetteville
Parkes, Edmundson, E-F.....	..... Pine Bluff
Parkinson, William Harris, E-F.....	..... Haven
Parks, Dean Wilmot, A-So.....	..... Rogers
Parrish, Edwin Doyle, A-Jr.....	..... Mena
Pate, Adeline, A-Jr.....	..... Little Rock
Pate, Vannie F., Ag-Sp.....	..... Little Rock
Paulk, Vera, Ed-F.....	..... Fayetteville
Peal, Claude Katherine, Ag-Sp.....	..... Fayetteville
Pearce, Odessa, Ag-Jr.....	..... Marietta
Pendergrass, John, E-F.....	..... Fort Smith
Pennington, Phillip Hawkins, E-So.....	..... Springfield, Mo.

Name and Course	Home Address
Perdue, Arthur Monroe, A-F	Pine Bluff
Perdue, Mildred, Ag-So	Pine Bluff
Petross, Lorraine, A-F	Springdale
Pettigrew, Lucy Irwin, Ed-Jr	
Phillips, Ada, Ag-F	
Phillips, James Thomas, A-Sp	
Phillips, Ralph Waldo, Ed-F	Wynne
Phillips, Sam, A-So	Camden
Pimm, Edna Marie, Ed-F	Nashville
Pinkney, Pembroke Thomas, A-F	Pine Bluff
Pinkerton, Doris Anita, A-Sp	Fayetteville
Pinkerton, Earle Irene, A-F	Russellville
Pinkerton, Guy William, A-F	Fayetteville
Pitts, Albert, E-T	Heavener, Okla.
Pixley, William C., E-T	Mount Enterprise, Tex.
Plack, Nellie May, Ag-F	Decatur
Poe, McDonald, A-Jr	Waldron
Poe, Sam Edgar, Ag-So	Waldron
Poe, Willie Edison, A-F	Waldron
Polk, Walton Edgar, A-F	Fayetteville
Presey, Boyd, A-F	Hot Springs
Powell, Mary Nell, A-F	Little Rock
Powell, Ruth, Ag-F	Texarkana
Powell, William Lea, Ag-Jr	
Priddy, Julian Burl, A-Jr	Danville
Proctor, Clifton Reed, E-F	
Pruitt, Mary Margaret, A-So	
Pugh, Bernice Opal, Ed-F	
Pugh, James Wilkes, A-S	
Purdy, Russell Talpee	Fordyce
Puristoy, Leslie A., A	Chidester
Pyle, Lester Lewis, A-F	Ratcliff
Radcar, Joe Clement, E-F	Fayetteville
Ragdale, Thomas Floyd, E-Jr	Russellville
Radt, Simon J., E-T	Oklahoma City, Okla.
Rambo, William Waldo, A-Jr	Alston
Ramey, Warren Arthur, E-T	Wilburn
Randall, Glen Orlive, Ag-Sr	Rogers
Randolph, Carvin Theodore, E-T	Dorchester, Tex.
Ray, Ralph Edward, A-F	Stuttgart
Reed, Arthur Elmo, Ag-F	Ratcliff
Reeser, Gladys Ellen, Ed-So	Jacksonville
Reeder, Francis Albert, E-T	Fargo, Okla.
Rhea, Dorenda, A-Sp	Nashville
Rice, Alan Walker, E-So	Fayetteville
Rice, Pauline, Ed-F	Rogers
Richards, Margaret Josephine, A-F	Little Rock
Richardson, Davis Payne, A-Sr	Fayetteville
Richardson, Elmer Leroy, A-So	Hardy
Richardson, Fount, A-Sr	Fayetteville
Richardson, Junius Charles, A-F	Paragould

Name and Course	Home Address
Richardson, James Edwin, E-T	El Reno, Okla.
Richardson, Tucker Vaughn, A-Sp	Little Rock
Ripley, Vincent Marsh, A-So	Fayetteville
Richey, John Edgar, A-Sp	Texarkana
Robbins, Rector Allen, E-T	Telephone, Tex.
Roberts, Theodore, E-T	Thackerville, Okla.
Robertson, James Leiland, A-S	Piggott
Robins, Neal Burton, E-Jr	Flope
Robinson, Charles Eric, Ag-I	Gravette
Robinson, Leta May, Ed-F	Wynne
Rodgers, Carlin Lanier, Ag-So	McAllen, Tex.
Rodgers, John Henry, Ag-Jr	McAllen, Tex.
Rodgers, Lois Virginia, A-Sr	Fayetteville
Roe, Madison Bates, E-T	Fayetteville
Rogers, Yandell, Ed-F	Rogers
Rood, Marjorie Jo, Ed-F	Rogers
Root, Duke Martin, Ag-Jr	Fayetteville
Root, Harold Luther, E-So	Fayetteville
Rosenbaum, Carl Augustus, A-Jr	Little Rock
Ross, James Bryant, E-Jr	Havana
Ross, Ruth Roberta, A-Jr	Nashville
Rowe, Cecil Ebert, E-T	Lepanto
Rowin, George Edward, E-T	Walnut Grove, Mo.
Rucker, William Lawton, E-F	Bauxite
Ruckman, Charles, E-F	Fayetteville
Rucks, Grace, Ed-F	Camden
Rudolph, Winifred Beth, Ag-So	Fayetteville
Ruppel, Helen Christine, Ed-F	Fayetteville
Ruppel, Margaret, Ed-F	Fayetteville
Rushing, Garland S., Ed-Jr	Chidester
Russell, Andrew Jay, A-Jr	Berryville
Russell, Della Belle, A-Jr	Fayetteville
Russell, George Samuel, I-I	Wallron
Russell, James Gordon, E-T	Cane Hill
Russell, John Lynn, A-F	Pine Bluff
Russell, Rose, Ed-F	Fayetteville
Rut Clifford, James Edgar, A-S	Malvern
Rutledge, Mary Allen, Ed-So	Fayetteville
Ryan, Marshall, E-T	Fort Smith
Saliba, Raphael Albert, A-So	Blytheville
Samuelson, Grace Lenore, A-Jr	Brasfield
Sanderson, Shelley, Ed-So	Texarkana
Sandlin, Carl, E-T	Venus, Tex.
Savage, Dorothy Agnes, A-Sp	Fayetteville
Scarborough, William Freeman, Ag-Jr	De Queen
Schaaf, Hastletine, A-F	Paragould
Schoonover, William Jacobs, Ed-So	Pine Bluff
Schweer, Georgie, Ed-So	Hot Springs
Scott, Carl M., A-F	Cunningham, Kan.
Scott, Caroline, Ed-So	Prescott
Scott, Esther, A-So	Monticello
Scott, Frank H., A-F	Monticello
Scott, Gonia Bell, A-F	Fort Smith
Scott, John Boyd, E-T	Fort Smith
Sellers, Katherine Elizabeth, A-Jr	Morrilton
Sensing, Ruby Mae, A-F	Fayetteville
Senyard, Charles Earl, Ag-Sp	Pine Bluff
Senyard, William Howard, A-S	Pine Bluff
Sessums, Earnest Alexander, E-Sp	Dallas, Tex.
Sexton, Fred Curtis, A-F	Fogland
Shannon, Gordon A., Ag-Sp	Stillwell, Okla.
Sharp, Jacob, A-So	Loschboro
Sharp, Samuel Miles, E-So	Fayetteville
Shaw, Lawrence G., E-T	Texarkana, Tex.

Shearer, William Francis, A-So.....	Lincoln
Shelley, Sebastian Maason, E-T.....	Midland
Shelton, George Gilbert, A-F.....	Paris, Tex.
Shepard, Nathaniel Leonard, E-Sr.....	Little Rock
Shinn, Silas Emmett, A-F.....	Russellville
Shirmer, Luther Liber, E-T.....	Jackson, Mo.
Shope, Harlan Durcan, E-F.....	Redheld
Shoptaw, Larian Neill, Ag-I.....	Dover
Shoup, Edmond Pound, A-Sp.....	Augusta
Shrader, Charles Warren, E-T.....	Cache, Okla.
Shuller, Benjamin Franklin, A-F.....	Ozark
Simmons, Rosa Ione, Ed-Sp.....	Urbana
Simmons, Erma, Ed-F.....	Urbana
Simmons, Vivian, Ag-F.....	Urbana
Simpson, Marion, Ed-F.....	Nowata, Okla.
Sims, Grace, Ed-Sp.....	Little Rock
Sims, Philip Deane, Ag-Sp.....	Carlisle
Singletary, George, Ag-F.....	Marion
Singletary, Mary Elizabeth, E-S.....	Fort Smith
Sipe, Paul Wilson, A-F.....	Fort Smith
Skelton, Helen, Ag-F.....	Fort Smith
Slade, Milton B., Ag-Jr.....	El Dorado
Slade, Josselyn, E-F.....	Junction City
Slaughter, Vera Bevers, Ag-Jr.....	Springdale
Smead, Leonard C., A-So.....	Camden
Smith, Ardis, E-Sr.....	Little Rock
Smith, Armon Pearle, Ag-F.....	Hamburg
Smith, Brice Reynolds, E-Jr.....	Wyre
Smith, Carl A., Ag-F.....	Fayetteville
Smith, Carl William, E-Sr.....	Fayetteville
Smith, Catherine Mary, A-Sr.....	Fayetteville
Smith, Charles McDaniel, A-I.....	Paris
Smith, Clarence Turner, Ag-Jr.....	Siloam Springs
Smith, Deane McKimley, Ag-Jr.....	Luxora
Smith, Emory Charles, E-T.....	Paris, Tex.
Smith, Frank Albert, Ag-F.....	Springdale
Smith, Hubert Leslie, E-F.....	Mena
Smith, John Ira, Ed-Jr.....	Tyro
Smith, Sam Otis, Ag-Jr.....	Tyro
Smith, Vivian Iree, A-So.....	Little Rock
Smver, Kathlyn Ivan, A-F.....	Springdale
Snayder, Lee Lee, A-So.....	Greenville, Miss.
Snell, William Crady, E-F.....	Bearden
Spann, Edward, E-T.....	Waskom, Tex.
Spencer, Clara Dewese, Ag-Jr.....	Van Buren
Spencer, George H., A-F.....	Monticello
Spencer, Raymond Chester, E-So.....	Russellville, Ind.
Snikes, Mary Lucille, Ed-So.....	Rogers
Sprague, Mary F., A-Sp.....	Coring
Spratt, Madge, A-Jr.....	Fort Smith
Staton, William P., A-So.....	Wichita Falls, Tex.
Stearns, John T., A-F.....	Fayetteville
Stevenson, James Anne, E-F.....	Van Buren
Stewart, Harlan Charles, A-So.....	Greenwood
Stone, Edward Durell, A-So.....	Pierce Cty. Mo.
Stone, Thomas W., A-F.....	Waldron
Stout, Marion Lewis, A-So.....	Hartford
Strange, Benjamin F., E-T.....	Sunderland, Miss.
Straub, Sebastian, Ag-Sp.....	Helena
Strickland, Lucy, Ed-So.....	Waldron
Stringfield, Glen Herbert, Ag-Jr.....	Rogers
Stroud, John Paul, E-F.....	Oxford
Stroup, Dwight, A-Sr.....	Paris
Stroup, Carl J. Argenius, Ed-So.....	Cassville, Mo.
Stroup, La Verne, A-F.....	Fayetteville
Stubblefield, Ralph Errol, Ag-F.....	Fayetteville



Name and Course	Home Address
Stubblefield, William Hugh, Ag-F	
Such, Carl Edmond, E-1	
Sugg, Barney Alga, Ed-F	
Sullivan, Mary Bob, Ed-Sr	
Sutton, Mrs. Gladys Raymond, Ag-Jr	
Swaffar, Carver Fuks, A-So	
Swirk, Loretta, Ed-F	Fayetteville
Swirk, Ruth, Ed-F	Fayetteville
Tarver, Wilbur, A-F	
Taylor, Bernice Amber, Ed-Jr	
Teter, Philip Otto, E-Jr	Batesville
Theriscand, Paul Joseph, E-F	Bentonville
Thomas, Clyde Unger, E-So	Berlyville
Thomas, Paye Minnie, Ed-F	Benton
Thomas, Travis Ray, Ag-So	Magalia
Thomas, William Owen, A-F	Little Rock
Thomason, Samuel Arrelton, Ag-So	Warren
Thomason, Dewey Schley, Ag-Jr	
Thompson, Jack Ardee, E-Sr	
Thompson, Mildred Katherine, Ed-Sr	
Thompson, Ruth Lorraine, A-F	
Thompson, Walter, A-F	
Thornbery, Marion Meredith, A-So	
Thrasher, Billie Bob, A-Jr	
Thrasher, Frances Mae, Ed-Jr	
Thrasher, Marvin J., E-F	
Throgmorton, Glenburn Maynard, Ed-F	
Tibbitts, Frances Louise, Ed-F	
Toalson, Carl L., A-So	
Toaz, Mildred Elizabeth, A-Jr	
Tomek, Louis John, E-T	C
Towell, Katie Lou, A-1	
Trice, Frank Abbott, E	
Trimble, Otis Carroll, Ed-Jr	
Tuck, Delpha Elizabeth, A-So	
Tunnell, Lloyd C., E-F	H
Tunstill, Ethyle Ruth, Ag-F	
Turley, Frances Louise, A-F	
Turnage, Ethel Jane, A-F	
Uhl, Agnes Sue, Ed-F	
Uhl, Edith, Ag-So	
Umstead, Elbert Owen, A	
Vallandigham, Earl R., E-T	
Van Arsdale, Verra Lucille, A-F	
Van Frank, James Newell, E-Sr	
Van Hook, Dorothy Alice, A-So	El Dorado
Van Note, Carl Otis, E-T	St. Joe
Van Wagener, Frank Clyde, E-F	Rogers
Verhoeff, James Lester, A-So	Bentonville
Vestal, Mildred, A-F	Little Rock
Vick, John Marion, A-F	Fayetteville
Voeste, Vera, Ed-So	Prescott
Vogler, Herry Benton, A-F	Little Rock
Wakefield, Richard B.	
Wall, Frank Leslie, A-F	Marked Tree
Wallace, Alverta Helen, A-So	Harrison
Wallace, George Strickland, Ag-So	Fayetteville

Name and Course	Home Address
Ward, John, Ag-So	Fayetteville
Ware, Maximilian X., E-Jr.	College Station
Warren, Andrew Rutherford, Ag-Sp.	Fayetteville
Waters, Helen Margery, A-Sr.	Fayetteville
Watkins, Guy Armitage, E-T.	San Antonio, Tex.
Watson, Bertrand Harold, A-Sp.	Mineral Wells, Tex.
Watson, Floie, Ed-F	Hamburg
Webb, Ray, Ed-Sr	Fayetteville
Wells, Willie Edna, A-Jr.	El Dorado
Westpheling, Mary Elizabeth, A-Jr.	Fayetteville
Whaley, Allene, Ed Sp	McNeil
Wharton, John Hugh, A-So	El Dorado
Wheeler, Florra Parks, Ed-F.	Warren
Whitaker, Gilbert Riley, E-F.	Stillwell, Okla.
White, Lin Neill, A-F.	Forrest City
White, Lois, Ed So	Paris
White, Otto, Ag-F	Selma, La.
White, Robert Joseph, A-F.	Paris
White, Ruby T., Ag-F	
White, Tuell, A., Ag.	
Whiteside, Leighton B., E-T	
Whitford, Nellie Marcella, Ag-F.	Fayetteville
Whitlow, George Samuel, E-So.	Hamburg
Wilkerson, Claphyra, A-Sr.	Aurora, Mo.
Wilkinson, Virginia Middleton, Ed-Jr.	Fayetteville
Willett, Thomas Linz, E-T	
Williams, Benjamin Franklin, Ag-Sp	
Williams, Carl, E-F	Womble
Williams, Hazel Lera, Ed-So	Fayetteville
Williams, John Oliver, A-F	Pine Bluff
Williams, Ray Edwin, A-Jr	
Williams, Taylor Thomas, E-So	
Williams, Vernon, E-So	Mt. Ida
Williams, Virgil, E-Jr	Mt. Ida
Wilson, Bernice Claire, A-F	
Wilson, Carrie Mae, Ag-Sr.	El Dorado
Wilson, Evelyn Louise, A-Jr.	Russellville
Wilson, Frances Lucile, A-Sr.	Fayetteville
Wilson, James Edward, A-So	
Wilson, Kate, A-F	
Wilson, Katherine Neill, Ag-Jr	Fayetteville
Wilson, Richard, A-F	Colombus
Wilson, William Thaddeus, Ag-	Fayetteville
Winfrey, Richard Bean, E-Sr.	
Winkleman, Ben H., E-Sr	
Winters, Lois Clarke, Ed-Jr.	
Waldert, Dorothy Louise, A-Sp.	
Wolf, Artemus Ferd, A-F.	
Wolf, George David, A-	
Wolf, Ruth, Ed-Jr.	
Wolfe, Thelma Elizabeth, A-So	
Wolfenbarger, Ruby Mae, Ed-F	
Wood, Henry Franklin, E-So	
Wood, Nora Lee, Ag-So	
Wood, Stanley Hammock, A-Jr	
Woodruff, Frances Aurora, Ed-Jr.	
Woodson, Juanita Deloh, Ed-Jr.	

Name and Course	Home Address
Worsham, Charles C., E-T....	.....Mena
Wray, Orion David, Ed-So	.....Conway
Wyers, Robert Edwin, A-F	.....Lmville
Wylee, Richard D., E-T	.....Carthage
York, Joseph Ferrel, E-F	.....Panhandle, Tex.
York, Thelma Lucille, Ag-F	.....Panhandle, Tex.
Zachary, Nelle Steele, Ag-Jr	.....Magnolia
Zinn, Grover A., E-So	.....El Dorado

## SUMMER SESSION, 1921

## \*Graduate Students

Adams, Ward Hogan	Springdale	Black, Lola	Booneville
Adcock, Myrtie Eula	Mineral Springs	Black, Norine	Booneville
Alexander, Alma	Jonesboro	Blackman, Jake	Marianna
Alexander, Ethel Kate	Rhea	Blair, Floy	Conway
Allen, Gladys Marie	Van Buren	Blair, William Adams	Enterprise
Allred, Ernest Giren	Pottsville	Blann, Arthur Salilee	Parkin
Alston, Irl	Checotah, Okla.	Blann, Mrs. Winifred Spicer	Crawfordsville
Anderson, Elmer J.	Louann	Blaylock, Thomas Franklin	Fort Smith
Anderson, Geneva	Kaw City, Okla.	Blodgett, George Frank	Jacksonville
Anderson, Homer L.	Louann	Blythe, Cleo	Fort Smith
Anderson, Jno. C.	Springdale	*Boggan, George Samuel	Goldonna, La.
Apple, Julian	Rogers	Boggan, Mrs. George Samuel	Kingston
Arbaugh, Hallie	Chismville	Bollenbacher, Nellie Bly	Fayetteville
Arnold, Renna	Fort Smith	*Bond, George William	Summers
Aubrey, Helen	Lockesburg	Booker, John Robert	Handley, Tex.
Babcock, Margaret	Batesville	Bossemeyer, James Lee	Fayetteville
Baggett, Della	Brinkley	Bouldin, Edna Macon	Mineral Springs
Baggett, Jno. B.	Fayetteville	Boyd, Alma	Rogers
Bailey, Ethel	Fayetteville	Boyd, Fred	Tyroneza
Bain, Melvin H.	Slayton, Tex.	Boyd, Macie	Fayetteville
Bandy, Cora	Lockesburg	Boyd, Mary Turley	Fayetteville
Barham, William C.	Prescott	*Bradley, James E.	Jonesboro
Barker, Oldon L.	Valdasta, Tex.	Braidwood, Lois Robin	Fort Smith
Barlow, Viola May	Blossom, Tex.	Brannan, Mrs. Elizabeth	Batesville
Barnes, Inez	Memphis, Tenn.	Brannan, Virginia May	Batesville
Barrett, Irene	Hugo, Okla.	Branstetter, Alice Savina	Gillett
Barron, Mattie L.	Saline, La.	Brooks, Charles S.	Bedias, Tex.
Barton, Lela Viola	Fayetteville	Broome, Eunice	Fort Smith
Bassett, Lucy	Fayetteville	Brown, D. Ella	Port Gibson, Miss.
Batten, Ethel B.	Paragould	Brown, Elnora Madeline	Stuttgart
Beardslee, Helen	Little Rock	Brown, Harvey Holman	Walnut Grove
Beardslee, Kathleen	Little Rock	Brown, Jesse Eugene	Ravenden
Bearfield, Annie Nell	Nashville	Broyles, Henry Engels	Farmington
Belk, Susie B.	Warren	Broyles, Lela Mae	Farmington
Bell, Vivian	Fayetteville	Bryant, Fave Alma	Success
Bentley, Rodger William	Fayette, Ala.	Bryant, Julia Margaret	Success
Benton, Virginia	Siloam Springs		
Berry, Lois Katherine	Fayetteville		
Berry, Virginia Aldridge	Charleston		
Bickerstaff, Flora	Brickey's		
Bingham, William Thomas	Springdale		
Bishop, Eugene Clinton	Barber		
Black, Calvin Adair	Perryville		

- Buchanan, Betty Velma      Prairie Grove  
 Burke, Zealia      Lexington  
 Burns, Mary Jeanette      Prescott  
 Burskirk, Winnie Bea      Cane Hill  
 Byrd, Sam      Fayetteville  
 Byrd, Mrs. Sam      Fayetteville  
 Byrnes, Homer Irving      Van Buren  
 Campbell, Clement S.      Houston, Tex.  
 Campbell, Mrs. J. T.      Mountain View  
 Campbell, Marceline      Fayetteville  
 Caraway, Katie      Alma  
 Carpenter, Edna Fay      Fayetteville  
 Carr, Robert Wheeler      Booneville  
 Carson, Jewell      Monticello  
 Carter, Claudia      Fayetteville  
 Cate, Louis      Fayetteville  
 Caudle, Juanita      Fayetteville  
 Chambers, Claude Lawrence      Jacksonville, Tex.  
 Chambless, Horace K.      Oak Grove, La.  
 Chandler, Clyde Florence      Fayetteville  
 Chandler, Patsy Maemie      Stamps  
 Cheatham, Andy Reynolds      Stevens  
 Chitwood, James A.      Hot Springs  
 Choate, Mrs. Earle      Center Point  
 Ciasnocha, Thomas      Buffalo, N. Y.  
 Clark, Jesse Frederick      Annona, Tex.  
 Clark, Lake      Fayetteville  
 Clark, Lina Pearl      Goshen  
 Clifton, Mary Artie      Russellville  
 Cobb, Bess      Fayetteville  
 Cobb, Jessie Ray      Fayetteville  
 Coker, Alice Edith      Fayetteville  
 Coker, Leila      Monticello  
 Coleman, Samuel Wallace      Strong  
 Collamore, Loftus James, Jr.      Little Rock  
 Collins, Carlos C.      Bentonville  
 Colvert, Clyde Cornelius      Eagle Mills  
 Colvert, Osie Harvey      Eagle Mills  
 Colvin, Ollie Mae      Warren  
 Compton, Agnes      Batesville  
 Compton, Lillian Eleanor      Rogers  
 Conaway, Gladys Natalia      Rogers  
 Coraway, Velma Loise      Rogers  
 Conn, George Boyd      Fort Worth, Tex.  
 Connell, DeBert Wilson      Hot Springs  
 Connell, Mrs. Jesse Tarver      Hot Springs  
 Cook, Alice Virginia      Fayetteville  
 Cooper, Mary Rebecca      Shamrock, La.  
 Coneland, Edith G.      Jonesboro  
 Couch, Mrs. G. H.      Fayetteville  
 Cowling, William Kelley      Wichita Falls, Tex.
- Cox, Robert Benjamin      Prairie Grove  
 Cranford, Dennis D.      Belfast  
 Crawford, Charles E.      Pettigrew  
 Crawford, Stacie Irene      Batesville  
 Creasy, Leonard S.      Dow, Okla.  
 Crockett, Charles Hayes      Fayetteville  
 Croom, Mrs. M. L.      Fort Smith  
 Cross, Mary Elizabeth      Pine Bluff  
 Crozier, Rachel Flagg      Fayetteville  
 Cruse, Bess      Fayetteville  
 Curtis, Jewell      West Fork  
 Dailey, Ozzie L.      Fayetteville  
 Dallas, Ben D.      Fort Worth, Tex.  
 Daniels, Elmer Austin      Tiawah, Okla.  
 Danner, Hattie Elizabeth      Fort Smith  
 Danner, Hilda Dean      Fort Smith  
 Davidson, Mary      Marvell  
 Davis, Anna Belle      Lowell  
 Davis, Gertrude Mary      Elm Springs  
 Davis, Halsell S.      Anna, Tex.  
 Davis, Leonard Ray      Portia  
 Deal, Merrigan      Driver  
 Deaver, Mary Putman      Springdale  
 Deaver, Zetta      Fayetteville  
 Deen, Eula Elma      Fayetteville  
 Deen, Margie Lola      Fayetteville  
 Dempsey, Silas Ezra      Russellville  
 Dial, Chester William      Fort Smith  
 Dixon, Melba Elmira      Mansfield  
 Doren, Clarence Edward      Tulsa, Okla.  
 Dotson, Ethel      Fayetteville  
 Dotson, Katie Ella      Fayetteville  
 Dowd, William J.      Prescott  
 Downs, Virginia      Hugo, Okla.  
 Duncan, Annie      Almyra  
 Durden, Beverly Gertrude      Greenwood  
 Edens, John J.      Bokchito, Okla.  
 Edler, Charles H.      New Florence, Mo.  
 Edwards, Sarah Zanie      Fort Smith  
 Elkins, Lorera Oris      Blytheville  
 Ellis, John Oliver Flurnoy      Leslie  
 Ellis, Martha Belle      Fayetteville  
 England, Pauline      Neosho, Mo.  
 Erickson, Elizabeth E.      Rogers  
 Ewart, James Burns      Booneville  
 Farmer, Garland Henderson      Grapeland, Tex.  
 Farmer, Rusha E.      Fayetteville  
 Faubus, Ellis Jewell      Aurora  
 Feaster, Hattie Jo.      Princeton  
 Ferter, Albert Edward      Donaldson  
 Ferguson, Bessie      Moro  
 Ferguson, James Raymond      Ada, Okla.  
 Fietz, Marcus Frederick      Fayetteville  
 Fietz, Rozella Mary      Fayetteville  
 Files, Carrie Maye      Booneville

- Files, Maude Ella Booneville  
 Files, Richard Malcolm Itasca, Tex.  
 Fleak, Roy Everette, Muskogee, Okla.  
 Florence, Omer Lee, Booneville  
 Friend, Harold Lloyd Blackwell, Okla.  
 Fournier, Paul Joseph Quinlan, Okla.  
 Funk, Gladys Ann Rogers  
 Galbraith, Mrs. Fred Clyde Brickey's  
 Galloway, John S. Paducah, Tex.  
 Gallagher, Irene Fayetteville  
 Gammill, Clifton Pine Bluff  
 Gardner, Maude Hamburg  
 Garlington, Arthur Roe Booneville  
 Garrett, Beatrice Semith Van Buren  
 Garrett, Billy Altheimer  
 Garrett, Florence Eugene Van Buren  
 Garrett, Nellie Weaver Van Buren  
 Garrison, Esta Viola Fayetteville  
 Gathright, Cora Huttig  
 Gill, Erwin Lowe Monticello  
 Gill, Marie Vivian Fayetteville  
 Gipson, Floyd McKinley Ratcliff  
 Glass, Miriam Genevieve Springdale  
 Gochenour, George Daniel Oklahoma City, Okla.  
 Goldman, Charles Tolbert Evansville  
 Goodwin, Jennie Hurter  
 Graves, Florence Lockesburg  
 Graves, Leda Belle Springdale  
 Greer, Clyde Eureka Springs  
 Griffin, Beulah Carlisle  
 Griscom, Ruth Lincoln  
 Gunning, Mary Fletcher Hot Springs  
 \*Gunthorp, Paschal R. Arkadelphia  
 Guthrey, William Morris Searcy  
 Hackett, Mrs. Minnie T. Fort Smith  
 Hall, Alma Vivian Charleston  
 Hale, Alfred Clay Athens  
 Hall, Hubert J. Waldron  
 Hall, Mary Kate Fayetteville  
 \*Halliburton, Frank None Vandale  
 Hamilton, Sarah Lorena Evening Shade  
 Hancock, Cora El Paso, Tex.  
 Harcey, Olen Knight Aurora  
 Hansard, Fred Gibson Fayetteville  
 Hanson, Carl J. Hamburg  
 Harbison, James Samuel Fayetteville  
 Harner, Allene Bauxite  
 Harris, Oline Vivian Forrest City  
 Harris, Robert Dorsey Fayetteville  
 Harrison, James Parker Nashville  
 Harrison, William Mace Muskogee, Okla.  
 Hart, Ethel Little Rock  
 Hart, Robert Paschal Arkadelphia  
 Hayes, Gladys Margaret Fort Smith  
 Hebert, James Louis Fayetteville  
 Hedrick, Margaret Gage Fayetteville  
 Heerwagen, Leo Frederick Fayetteville  
 Heffner, Louise England  
 Henderson, Ethel Huntsville, Tex.  
 Henry, Mabel Lola Fayetteville  
 Hicks, Juanita Greenwood  
 Hicks, Olive Pansy Greenwood  
 Higgs, Carrie Lee Princeton  
 Higgs, Mrs. Thomas G. Bearden  
 Hill, Ethel Pearl Charleston  
 Hill, Mrs. James R. Horatio  
 Hilton, Lilben Lewis Siloam Springs  
 Hinds, Everette Vorheese Rogers  
 Hirst, Claude Marvin Prescott  
 Hite, Tola Biggers  
 Hogan, Julian Claud Nashville  
 Holbrook, Grayce B. Wye  
 Holcombe, Edgar N. C. Magness  
 Holderby, Richard Newark  
 Holdridge, Hannah H. Stuttgart  
 Holland, Loretta Pocahtontas  
 Holleman, Felicia Searcy  
 Hollingshead, Maude D. Stuttgart  
 Hostetter, Virginia Gillett  
 House, Florence DeQueen  
 Houston, Laura McCampbell Care Hill  
 Howard, Virgie Mineral Springs  
 Huddleston, Vere Lee Hot Springs  
 Hudson, Eva Winslow  
 \*Hughes, Claude Allen Kossuth, Miss.  
 \*Hull, Joseph William Junction City  
 Hull, Mrs. James William Ruston, La.  
 Hull, Mrs. Mable Thayer, Kan.  
 Hurt, Thelma H. Fort Smith  
 \*Irby, Nelen Meaders Bearden  
 Irwin, Julia Fort Smith  
 Ivy, Thomas Ross Fayetteville  
 Jackson, George A. Monticello  
 Jackson, James R. Fayetteville  
 \*Jackson, Ralph E. Columbus  
 Jameson, John S. Japton  
 Jennings, Edna Myrtle Stuttgart  
 Jernigan, Vela Batesville  
 Jessup, Mabel Carlisle  
 Jesson, Ruth Carlisle  
 Jewell, Margaret Fayetteville  
 Johnson, Marie Ilma Arkadelphia  
 Johnson, Marie Louise Fort Smith  
 Johnson, Marvin Dickson Waldo  
 Johnson, Otis Albert South West City, Mo.



- Johnson, Thelma Maud      Huttig  
 \* Jones, Ira B.      Meta  
   Jones, Lois      Atkins  
 Jones, William Jennings      Atkins  
 Jordan, Edythe Austin      Fayetteville  
 Jordan, Frances Elizabeth      Prescott  
   Jordan, Helen      Prescott  
 Jordan, Kara      Fayetteville  
 Kantz, Nellie Welch      Fayetteville  
 Karies, Cleo N.      West Fork  
 Kehoe, Arthur L.      Tora sas, Tex.  
 Keith, Lawrence Fuller      Waldron  
 Kelleam, Dorothy Ann      Fort Smith  
 Kelleam, Frances      Sallisaw, Okla.  
 Kemp, Radford James      Sherman, Tex.  
 Kennan, Clara Berrice      Rogers  
 Kennedy, Dale E.      Waldo  
 Kennedy, Harvey William      Waldo  
 Kihling, Jennie C.      Fort Smith  
 Kilian, Mary Lynn      Monticello  
 King, Mrs. Annie Putman      Fayetteville  
 Kinsworthy, Burton H.      Wilton  
 Kirkpatrick, Insley J.      Summers  
 Kramer, Charles T.      Wattersaw  
 Kronke, Alvin Jesse      Fairland, Okla.  
 Krone, Marie Ann      Fort Smith  
 Law, Arch R.      Bentonville  
 Lea, Mary Sue      Princeton  
 Leach, Hope V.      Lincoln  
 Leach, Luther Orland      Scranton  
 Lee, Annie Lucile      Nettleton  
 \* Lee, Arthur F.      Little Rock  
 Leeper, Mabel      DeQueen  
 Lemmon, Robert Wayles      Altholmer  
 Lewis, George Henry      Lamar  
 Lewis, William Augustus      Fayetteville  
 Lincoln, Benjamin Alpin      Van Buren  
 Linder, John      Little Rock  
 Linton, C. B.      Russellville  
 Linton, Mrs. C. B.      Russellville  
 Lively, Ralph Eugene      Marmaduke  
 Lowe, Katherine Martha      Fayetteville  
 Lowe, Roy Ellis      Greenwood  
 \* Lucas, Henry A.      Greenland  
 Lucas, Mrs. Henry A.      Greenland  
 Luck, Mildred      Altus  
 Luttrell, Roschod      Gillham  
 Lynn, Joseph William      Bentonville  
 McAdams, Claude Muskogee, Okla.  
 McAdams, Mrs. Marguerite      Fayetteville  
 McAlister, Pa.      Fayetteville  
 McCain, John Erwin      Burdette  
 McCarty, George Phillips      Dierks  
 McCatherine, Mrs. Charles      Fayetteville  
 McCatherine, Maxine      Fayetteville  
 McConnell, Ruby      Booneville  
 McCown, Dora Elizabeth      Carney, Okla.  
 McDaniel, Calvin H.      Magnolia  
 McDonald, Angus Henry      Sallisaw, Okla.  
 McDonald, L. C.      Vinita, Okla.  
 McDonald, Margaret C.      Fort Smith  
 McGill, Annie Scott      Chidester  
 \* McGill, Joseph Tate      Chidester  
 McInturf, Edith E.      Nashville  
 McKelvey, Aaron Alec      Fort Smith  
 McKinstry, Kate Lee      Wilmar  
 McKissack, Gordon Russell      James, Tex.  
 McNabb, Helen Lucile      Fayetteville  
 McNabb, Meyrle      Fayetteville  
 McNutt, James Luther      Philadelphia  
 McRoy, Dorothy May      Fayetteville  
 Mallard, William Burnett      Everton  
 Manning, Frank Fleetwood      Booneville  
 Marring, John Eber      Haynes  
 Mashburn, Carl William      Kingston  
 Mason, Fagan Barb      Flippin  
 Mason, Flora Pauline      Sumner  
 Mason, Martha B.      Marblehead, Mass.  
 Massie, Lillian Emily      Fayetteville  
 Matlock, Grace Mae      Van Buren  
 Matthews, Stella Mae      Wheatley  
 Maxwell, Ida Elizabeth      Monticello  
 May, George      El Paso, Tex.  
 May, John Wendell      Fayetteville  
 Menees, Wilfred      Quitman  
 Meyer, Mrs. Bertha Catherine      Gentry  
 Meyer, Waldo A.      Gentry  
 Mickel, Elizabeth Margaret      Fort Smith  
 Middleton, James W.      Hatfield  
 Miles, Baxter      Fayetteville  
 Miles, Gertrude Ellis      Fayetteville  
 Miles, Josephine Elizabeth      Fayetteville  
 Millard, Roy Irwin      Blue Ball  
 Miller, Corrow Reed      Cave Hill  
 Mills, Vernon Scott      Stevens  
 Minnis, Hal Fletcher      Roe  
 Mitchamore, Clarence E.      Branham, Tex.  
 Mitchell, Afton Lomax      Chismville  
 Mitchell, Clarence D.      Houston, Tex.  
 \* Mitchell, Fred T.      Hattiesburg, Miss.  
 \* Mitchell, Sextus Dunkin      Chismville  
 Moffitt, Hugh Price      Chattanooga, Tenn.  
 Molesworth, Albert Martin      Fayetteville  
 Molesworth, Mrs. Emma      Fayetteville  
 Molpus, Richard Grady      Blevins  
 Montgomery, Velma Lucile      Exeter, Mo.

Moore, Henrietta	Fayetteville	Parker, Mary Lelia	Fort Smith
Moore, Irene	Fayetteville	Parsley, Joyce Varda	Fayetteville
Moore, Leone	Fayetteville	Patterson, Litta Verena	Ozark
Moore, Nannie Maude	Fayetteville	Patillo, Bessie L.	Nash, Tex.
Moore, Nannie May	Fayetteville	Patillo, Jean C.	Nash, Tex.
Moore, Robert Lee	Duncan, Miss.	Peck, Ola	Fort Smith
Moore, Ruth Elizabeth		Pettigrew, Katherine	Fort Smith
	Clarksville	Pharr, Naomi Yolande	Carlisle
Morelock, Mabel	Van Buren	Philbeck, Mrs. R. E.	Pine Bluff
Morris, Nettie Catherine		Phillips, Rose	DeQueen
	Fort Smith	Phipps, Mrs. W. E.	Clarendon
Morris, Truman Nicholas		Phipps, William Elmer	Clarendon
	Mammoth Spring	Pickel, Mrs. Frank W.	
Morrison, Mary Helene			Fayetteville
	Fort Smith	Pickel, Frank W.	Fayetteville
Morrison, Roma L.	Elkans	Pickens, Thelma	Batesville
Mott, Albert	Sarcoxie, Mo.	Pittman, Walter Newton	Ashdown
Mott, Mrs. Albert	Sarcoxie, Mo.	Pitts, Albert	Heavener, Okla.
Mountcastle, Emma A.	West Fork	Plant, Leota Bell	Grove
Mulrenin, Cecilia	Fayetteville	Poole, Geraldine	Batesville
Murphy, Leo	Junction City	Porter, Grace	Texarkana
Murphy, Mrs. P. E.	Junction City	Porter, Grover Cleveland	Horatio
Mutchie, Eva Josephine		Porter, Mrs. G. C.	Horatio
	Booneville	Potts, Rosa	Lockesburg
Myers, Mrs. Ann W	Hoxie	Powell, Mrs. George W.	
Naill, Nell May	Bentonville		Fayetteville
Nance, Edna Mae	Fayetteville	Powell, William Lea	Fayetteville
Nash, Cora Lee	Huttig	Prather, Doris	Fort Smith
Neal, Mamie Maud	Horatio	Prather, Marian	Fort Smith
Neary, Mrs. Annie R.		Price, Herbert H.	Pocahontas
	Hot Springs	Pryor, Vera Jane	Morrilton
Neck, Theodore William		Pugh, Bernice Opal	Fayetteville
	Miami, Okla.	Pyburn, Helen Maggie	Dotson
Nettleship, Wilma	Fayetteville	Pyburn, Nita Catherine	Dotson
Newell, Wesley Bird	Dallas, Tex.	Radt, Simon J.	Oklahoma City
Newman, J. Marion	Prairie View	Ralston, Mrs. Lily May	Charleston
Newman, Lillian M.	Hot Springs	Rambo, William W.	Alston
Newton, Joan Glen	Slocumb, Ala.	Ramsey, Leveta	Sulphur City
Newton, Lytie Jefferson		Ramsey, W. A.	Milburn
	Jackson, Tenn.	Randall, Glenn Orvice	Rogers
Nichols, Margaret Beatrice		Raney, Ama Marie	Greenwood
	Lockesburg	Rankin, Clyde	Springdale
Nixon, Otis H.	Pine Bluff	Ray, Daniel Jefferson	Harrison
Nott, Leona	Winslow	Reagan, William Floyd	McNeil
Nulph, Anna Louise	Fort Smith	Rediarn, Miss Sammie	Stuttgart
Nunn, Mrs. Eva McClintock		Reinsch, Olga Hedwig	Stuttgart
	Monticello	Reed, Ruth	Springdale
O'Kelly, Artie Adrian		Reider, Francis Albert	
	Blue Mountain		Fargo, Okla.
Oliver, James William	Eureka	Renner, Welton	Fayetteville
Osborn, Bertha Marie	Rogers	Rhodes, John Raymond	Wilmar
Osburn, Elijah Edward		Rhyne, Mrs. Jessie	Rosebud
	Fayetteville	Rice, Alan Walker	Fayetteville
Osburn, William Coen	Alexander	Richards, Elizabeth Mabel	
	Melissa, Tex.		Greenwood
Overholt, James E.	Fayetteville	Richardson, Davis Payne	
Overton, Garland Bruce			Fayetteville
	Fayetteville	Richardson, Hattie	Warren
Owens, Robert C.	Merit, Tex.	Richardson, James Edwin	
Paddock, Charles Samuel			El Reno, Okla.
	Fayetteville	*Ridling, Little	Mena
Palm, Clara	Rogers	Rieff, Thelma Kathryn	
Pankhurst, Homer Searl			Fayetteville
	Lafayette, Tex.	Robbins, Rector Allen	
Pardue, Parthenia	Bearden		Telephone, Tex.
Parker, Bertha Mae	Lincoln	*Roberts, Roy W	Greenwood

# LIST OF STUDENTS

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Roberts, Theodore Sarquin, Tex.  
Robbins, William Burke  
Clarksville, Tex.

Robinson, Charley Boyce  
Dardarelle

Robinson, Florence Edith Rogers

Robinson, Katie Faye West Fork

Robinson, Mrs. Ralph Fort Smith

Robinson, Robert Clifton  
Fayetteville

Rodgers, Eunice Loreaire  
Fayetteville

Rodgers, John Henry Fayetteville

Rodgers, Lois Virginia Fayetteville

Rogers, Euist Orlere Wilmar

Rogers, Vera Hazel Arkadelphia

Roe, Madison B. Calico Rock

Roney, Nannie May Hamburg

Rouw, Elsie Inez Van Buren

Rowe, Cecil Ebert Lepanto

Rowin, George Edward  
Walnut Grove, Mo.

Rudolph, Winifred Fayetteville

Russell, George Samuel Waldron

Rutledge, Allen Fort Smith

Sanders, Mayme Fayetteville

Sarderson, Maurine Texarkana

Sarderson, Sibyl Texarkana

Scott, Esther Monticello

Scruggs, Alberta  
Montgomery, Ala.

Selig, Blanche Alexia Stuttgart

Sellers, Katherine Elizabeth  
Morritlon

Sensing, May Fayetteville

Sharp, S. M. Alma

Shill, Stella Elizabeth Elm Springs

Shipley, Elizabeth Fayetteville

Shipley, Hazel Fayetteville

Shirmer, Luther Liber  
Jackson, Mo.

Shrader, Charles Warren  
Cache, Okla.

Shults, Doris Elizabeth Brinkley

Sidle, Ellen Mary Fayetteville

Sigmon, Elvora Lowell

Sigmon, Roth Lowell

Simmors, Rose Ione Urbana

Simmors, S. Vivian Urbana

Sims, Nelle Frances Greenwood

Slemmons, Virginia Monticello

Slover, Mrs. Edgar W. Berryville

Slover, Edgar W. Berryville

Smith, Byron T. Springdale

Smith, Carl Anton Fayetteville

Smith, Carl William Fayetteville

Smith, Catherine Fayetteville

Smith, Elizabeth Pitkin

Smith, Hubert Quintin  
Green Forest

Smith, Louise Alice Vinita, Okla.

Smith, Ruby Lee Fayetteville

Smith, Winnie Estine  
Okmulgee, Okla.

Sorrells, Willie G. Bearden

Spcer, Maude Atkins

Spratt, Madge Fort Smith

Stephenson, Jack McKinley  
Okemah, Okla.

Stephenson, Ola Diza  
Okemah, Okla.

Stephenson, Virginia  
Okemah, Okla.

Stockburger, Iva Z. Fayetteville

Strange, Benjamin Franklin  
Spiro, Okla.

Strickland, Mamie Lyle  
Byhalia, Miss.

Strong, Mrs. Nannie Brinkley

Stroud, Irene Rogers

Stubblefield, Garland Fayetteville

Stubblefield, Ware Fayetteville

Such, Carl E. Fayetteville

Sutton, Mrs. Fred Marianna

Swaffar, Carver Fulks Marianna

Swingle, Marquitta Mazie, Okla.

Taggart, Helen Elizabeth  
Fort Smith

Tarver, Vernon Star City

Taylor, Jewell Cave Hill

Taylor, John Wesley Poughkeepsie

Terhune, Mrs. Alice Esther  
Cave Springs

Thomas, Crawford Holmes  
Pine Bluff

Thomason, Dewey Schley Warren

Thornton, Gulgare Estelle Camden

Thornton, Lalla Rookh Camden

Thrash, Grover Cleveland  
Glenwood

Thrasher, Marvin J. Piggott

Throgmorton, Chaffin A. Brinkley

Thurber, Earl Chapman  
Fayetteville

Thurman, Mrs. Nora Alice  
Springdale

Tidball, Albert Todd Fayetteville

Tiffce, Etta Ellen LeFlore, Okla.

Tiller, Minor Heber Springs

Toaz, Mildred Elizabeth  
Fayetteville

Tomek, Louis John Cave

Traweck, Arlire Douglas

Trimble, Otis C. Enon

Trotter, Charles Roscoe Ulm

Tucker, Justin Randolph  
Western Grove

Turnell, Loyd C. Hope

Tvegart, Mary Jewell Gertry

Uhl, Agnes Fayetteville

Uhl, Edith Fayetteville

Vanenburg, Bitha Alma Batesville

Van Frank, James Newell  
Little Rock

Van Hook, Lottie Ogdon

Van Matre, Katherine  
Oklahoma City, Okla.

Velvin, Cora Lewisville

Verfurth, Gertrude Fort Smith

Verhoff, James Lester Bentonville

Vineyard, Lela Amanda Greenwood

Vineyard, Mittie Emily Greenwood

Voeste, Vera	Prescott	Whiteside, Leighton Buel	Jumbo, Okla.
Wakefield, Elmer Glenn	Nashville	Whitford, Nellie	Fayetteville
Walden, Lola	Batesville	Wilkinson, Virginia	Fayetteville
Walker, James O.	Fayetteville	Willett, Thomas Linz	Conway
Wall, Helen	Pine Bluff	Williams, Bess	Fort Smith
Wall, Mrs. Mattie Fulson	Cotter	Williams, Kate Hardister	Jacksonport
Ward, Guy Marmaduke	Batesville	Williams, Naomi Josephine	Fayetteville
Ward, Mary	Prescott	Wilson, Charles N.	Cabot
Ware, Jacob Osborn	Kings Mountain, N. C.	*Wilson, Carl Vanhorn	Fayetteville
Warren, Virginia	Conway	Winkleman, Charlie Dan	Fayetteville
Washington, Ruby	Fort Smith	Winkleman, Ben Hartwell	Fayetteville
Waters, Helen Margery	Fayetteville	Wolf, Lillie	Cherokee, Okla.
Watkins, Ada	Kingston	Wolf, Ruth	Fayetteville
Watson, Adele	Mineral Well, Tex.	Woods, Chat	Alzheimer
Watson, Bert H.	Mineral Wells, Tex.	Woodruff, Frances Aurora	Fayetteville
Watson, Mrs. Ella B.	Clarksville, Tex.	Worsham, Charles C.	Ballanger, Tex.
Webb, Ray	Fayetteville	Wright, Mary Susan	Carthage
Webb, Willis Dunbar	Huntsville	Wylie, Richard, D.	Carthage
Webster, Dillie Mae	Elm Springs	Yelverton, Ollie Elizabeth	Greenwood
Weidner, Bertie Viola	Stuttgart	York, Christa	Mena
West, William E.	El Reno, Okla.	Youmans, Catherine Rebecca	Fort Smith
Whaley, Sue	Everett		
White, Hugh Hayes	Houston, Tex.		
White, Louise Melton	Lockesburg		
*Whiteside, Frederick William	Monticello		

## UNIVERSITY HIGH SCHOOL

1921-1922

Name	City	Name	City
Anderson, Geneva	Kaw City, Okla.	Ellis, Edward	Fayetteville
Appleby, Jack	Fayetteville	Ellis, Laura	Hot Springs
Arrett, Bessie	Fayetteville	Ellis, Susan	Fayetteville
Askew, Bettie	Fayetteville	Farmer, Rusha	Fayetteville
Atkirs, Joseph	Fayetteville	Finger, Hubert	Fayetteville
Bell, Mattie	Elm Springs	Flanagan, Thelma	Fayetteville
Blackman, Jake	Fayetteville	Geary, Alice	Fayetteville
Blarshard, Ruth E.	Fayetteville	Gilstrap, Marguerite	Saint Paul
Boyd, Mary	Fayetteville	Cladden, Doris	Bentonville
Bullock, Nolen	Bentonville	Gollaher, Irene	Fayetteville
Burch, Ernest	Kingston	Griffith, Bill	Fayetteville
Cady, Ruth	Fayetteville	Grubb, Carnett	Fav, Okla.
Canron, Ruth	Fayetteville	Gustin, Wade	Fayetteville
Cardwell, Fannie	Johnson	Hale, Arthur	Fayetteville
Carman, Elizabeth	N. Little Rock	Hamm, Garland	Battles
Candle, Fred	Russellville	Harsard, Fred	Fayetteville
Chapman, James	Fayetteville	Hartwig, Mary Frances	Fayetteville
Chapman, Robert Earl	Oden	Harrington, Haymond	Bentonville
Combs, Paul	Hager	Hart, Alton	Fayetteville
Crouch, Lucille	Vinita, Okla.	Hathcock, Alfred	Fayetteville
Dacus, Lester	Magazine	Herderson, Leo	Fayetteville
Dever, Zetta	Fayetteville	Herry, George	Fayetteville
Drake, Doris	Fayetteville	Hester, Ralph	Evening Shade
Drake, James	Fayetteville	Hickey, Jewell	Fayetteville
Duff, Herman	Plumerville	Hight, Jack	Fayetteville
Earle, Pount	Fayetteville	Hodges, Mary	Fayetteville
Ellis, David Y.	Fayetteville	House, Amos	Johnson

Name	City	Name	City
Irby, Ruby	Fayetteville	Peterson, Alice	Fayetteville
Jackson, James	Fayetteville	Phillips, Eunice	Whitaker
Jackson, Frances	Fayetteville	Phillips, Julia	Fayetteville
Jacobs, Robert	Melbourne	Pinkerton, Ralph	Fayetteville
Jeffrey, Allan	Fayetteville	Pinkerton, Ruby	Fayetteville
Jeffrey, Gordon	Fayetteville	Platt, Deloris	Fayetteville
Jewell, Margaret	Fayetteville	Polk, Merrill	Fayetteville
Johnson, Ben F.	Fayetteville	Pound, Frank	Tallulah, La.
Johnson, Bonnie	Fayetteville	Radican, Ed	Fayetteville
Johnson, Gladys	Fayetteville	Radican, Lynn	Fayetteville
Johnson, Ruby	Fayetteville	Reiner, Maurice	Fayetteville
Johnson, Torsie Mae	Fayetteville	Reiner, Welton	Fayetteville
Jones, Henry K.	Fayetteville	Rhew, Clover	Judsonia
Krapp, Bradford Jr.	Fayetteville	Rudolph, Marguerite	Fayetteville
Krapp, Marion	Fayetteville	Rudolph, Ruth	Fayetteville
Ladd, Virginia	Fayetteville	Seamster, Leona	Fayetteville
Latimer, Dorothy G.	Fayetteville	Sharp, Lin	Fayetteville
Latimer, Elizabeth	Fayetteville	Shipley, Harold	Fayetteville
Lea, Robert	Fayetteville	Sims, Harry	Plumerville
Leicham, John	Bentonville	Singletary, George	Ebony
Leonard, Elston	Fayetteville	Smith, Frank	Fayetteville
Lively, Gladys	Fayetteville	Smith, Mary Emma	Fayetteville
Lively, Crayce	Fayetteville	Smith, Paul	Springdale
Logg, Jewell	Fayetteville	Sore, Margaret	Fayetteville
Loomis, Ivan	Hockerville, Okla.	Starford, Malcolm	Fayetteville
Lucas, Ruth	Fayetteville	Starnes, Lola	Fayetteville
May, Hazel	Brentwood	Stephens, Charles	Fort Smith
May, Wendall	Brentwood	Store, Samuel	Fayetteville
Miles, Baxter	Fayetteville	Thompson, Clinton	Fayetteville
Moore, Jerome	Fayetteville	Thompson, Una	Fayetteville
McCallain, Maurice	Fayetteville	Turner, Obie	Fayetteville
McCathrine, Maxine	Fayetteville	Ward, Rachel	Fayetteville
McKinney, Earl	Springdale	Whitcomb, Leta	Fayetteville
McNabb, Horace	Fayetteville	Williams, Carl	Womble
McNabb, Ruth	Fayetteville	Williams, Virginia	Fayetteville
Neal, Harvey	Fayetteville	Wifrey, Hal	Fayetteville
Nettleship, Mary Frances	Fayetteville	Whitaker, Maxwell	Fayetteville
	Fayetteville	Wickleman, Charles	Fayetteville
Okes, Vera	Fayetteville	Wright, Vera	Fayetteville
O'Kelly, Arlie	Blue Mountain	Wright, Willis	Fayetteville
Parsley, Joyce	Fayetteville	Youngblood, Thelma	Oswega, Mo.
Payne, Allen	Fayetteville		



# SUMMARY

1921-22

<i>College of Arts and Sciences:</i>		408
Graduates	7	
Seniors	26	
Juniors	52	
Sophomores	97	
Freshmen	188	
Specials	38	
<i>College of Education:</i>		214
Graduates	2	
Seniors	12	
Juniors	45	
Sophomores	60	
Freshmen	82	
Specials	13	
<i>College of Engineering:</i>		285
Seniors	17	
Juniors	27	
Sophomores	47	
Freshmen	67	
Specials	7	
Trade Courses	120	
<i>College of Agriculture:</i>		176
Seniors	12	
Juniors	31	
Sophomores	37	
Freshmen	64	
Specials	32	
Total		1083
Duplicates		29
Fall, winter, and spring terms		1054
Summer Session		656
Cotton Grading Class		20
University High School		141
General Extension Classes		146
Correspondence Courses		289
Agricultural Short Courses		1326
Metermen's Short Course		30
Winter Farmers' Short Course		300
Grand Total		3962

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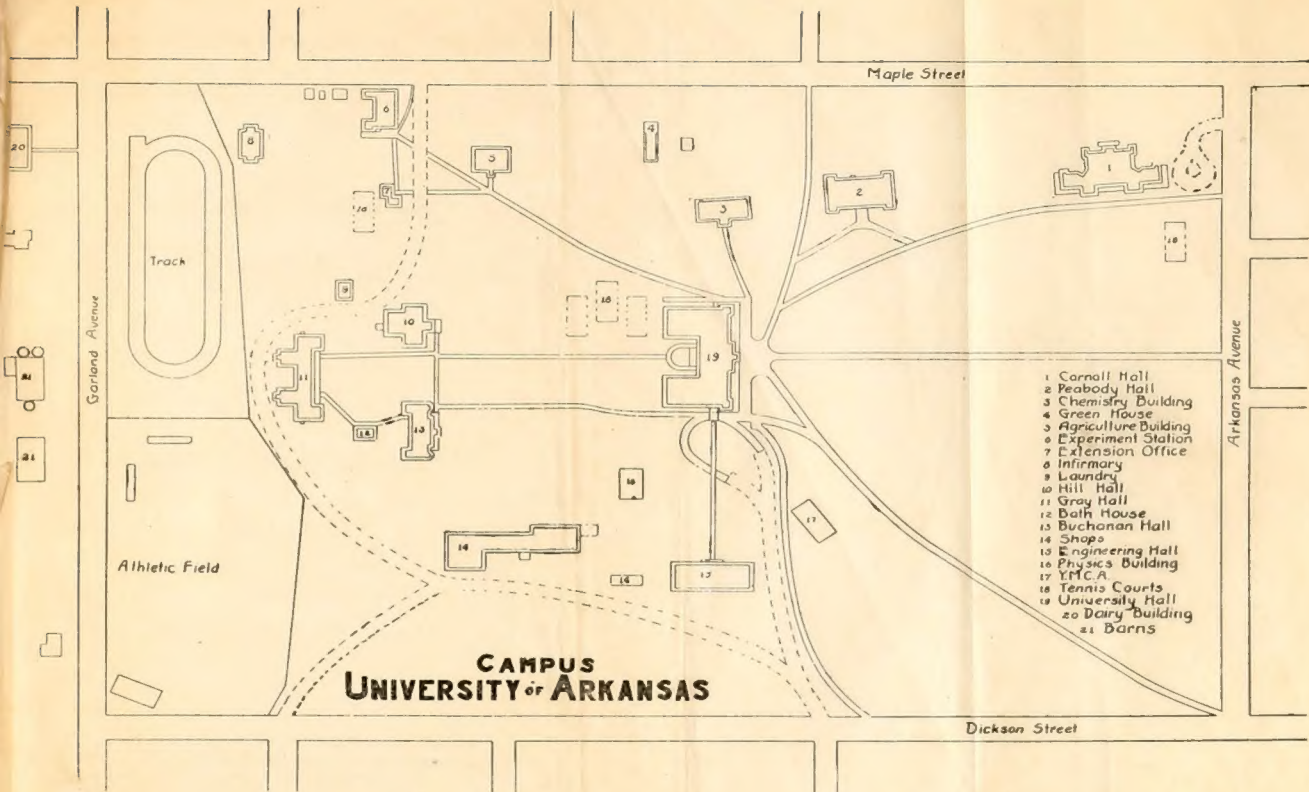
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A map of the University of Arkansas campus. The map shows the main campus area with various buildings and roads. A red dot marks the location of the book's discovery, labeled 'BOOK FOUND'. A red line connects this dot to a building labeled 'LIBRARY'. The map also shows the 'UNIVERSITY OF ARKANSAS' and 'CAMPUS'.

